

Application No. 10/017,973
Amendment dated January 12,2004
In Reply to Final Office Action of November 17,2003

MTS-520US5

Amendments to the Drawings:

The attached sheets of drawings include changes to Figures 1-42. These drawings replace the original sheets.

Attachments

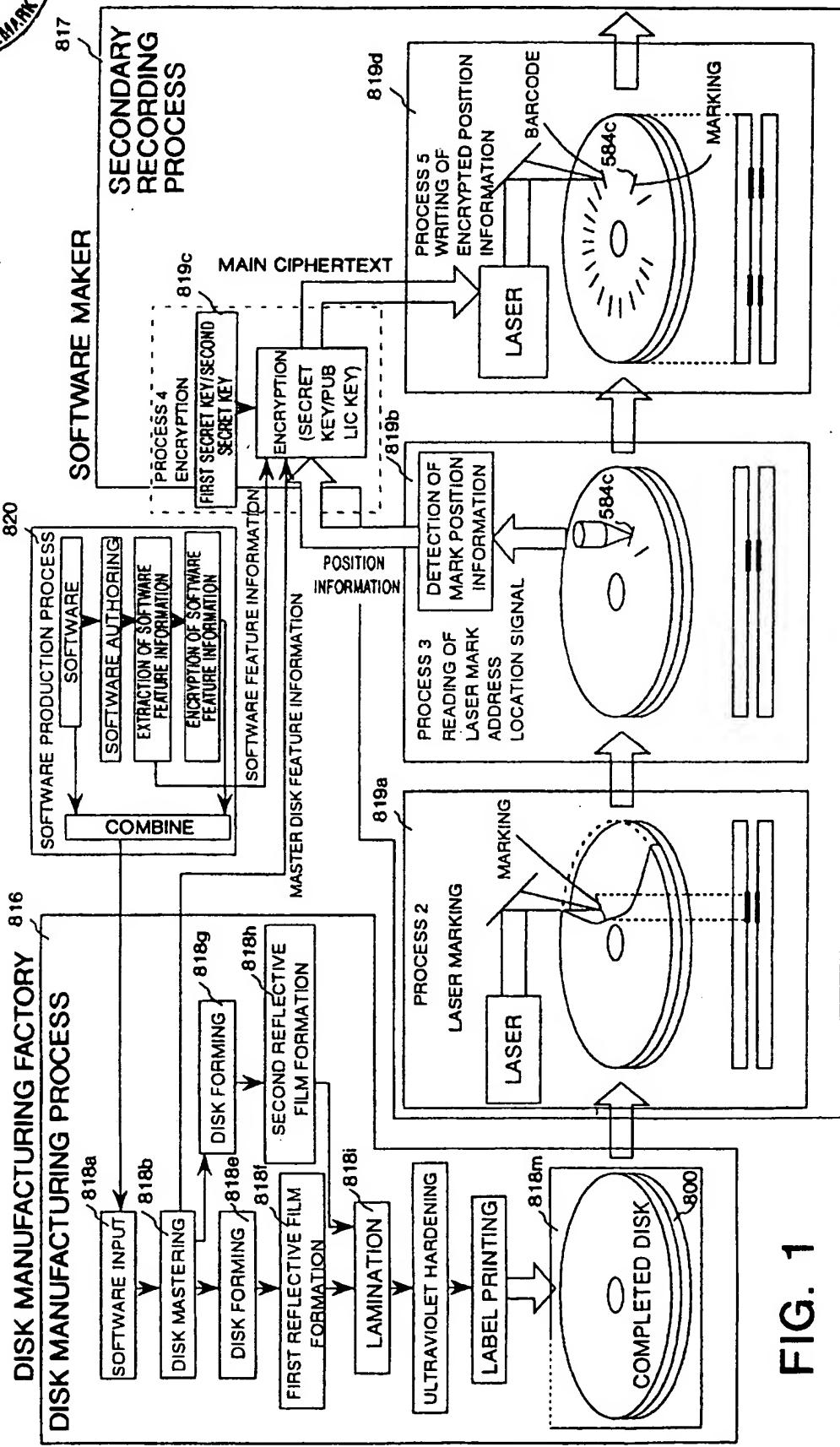
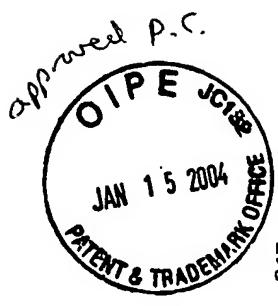


FIG. 1

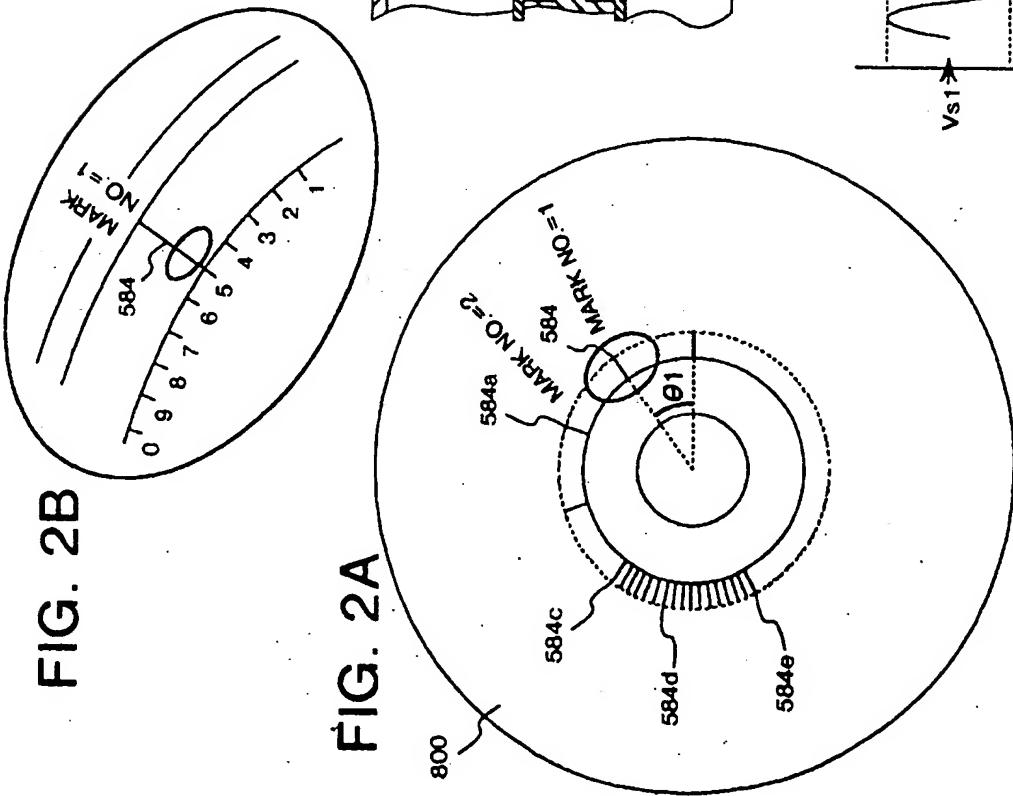


FIG. 2A

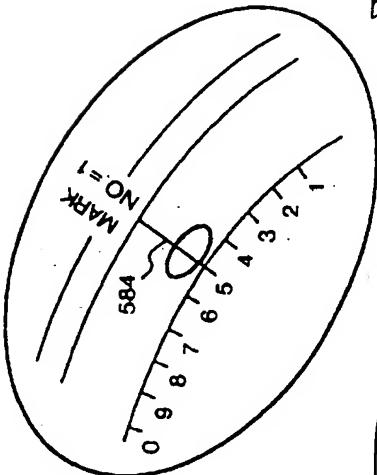


FIG. 2B

NONREFLECTIVE PITS ARE
FORMED IN RADIAL DIRECTION

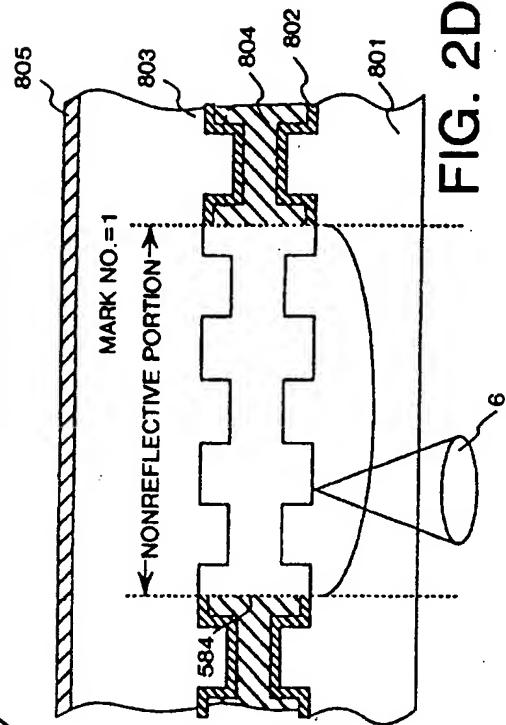


FIG. 2C



FIG. 2D

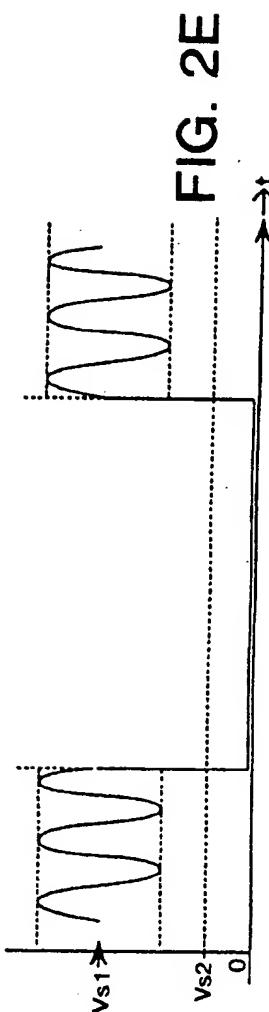


FIG. 2E

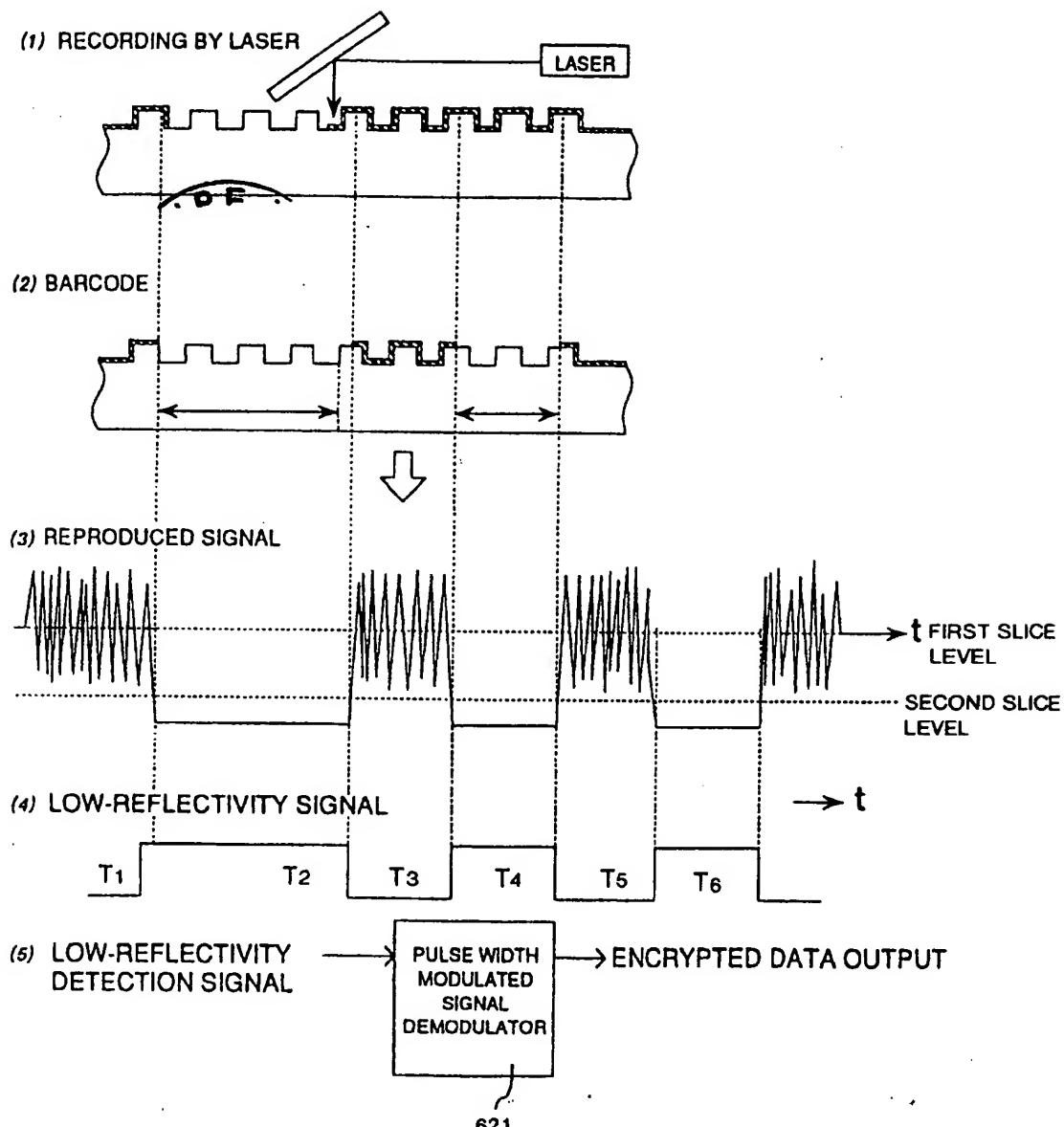


FIG. 3

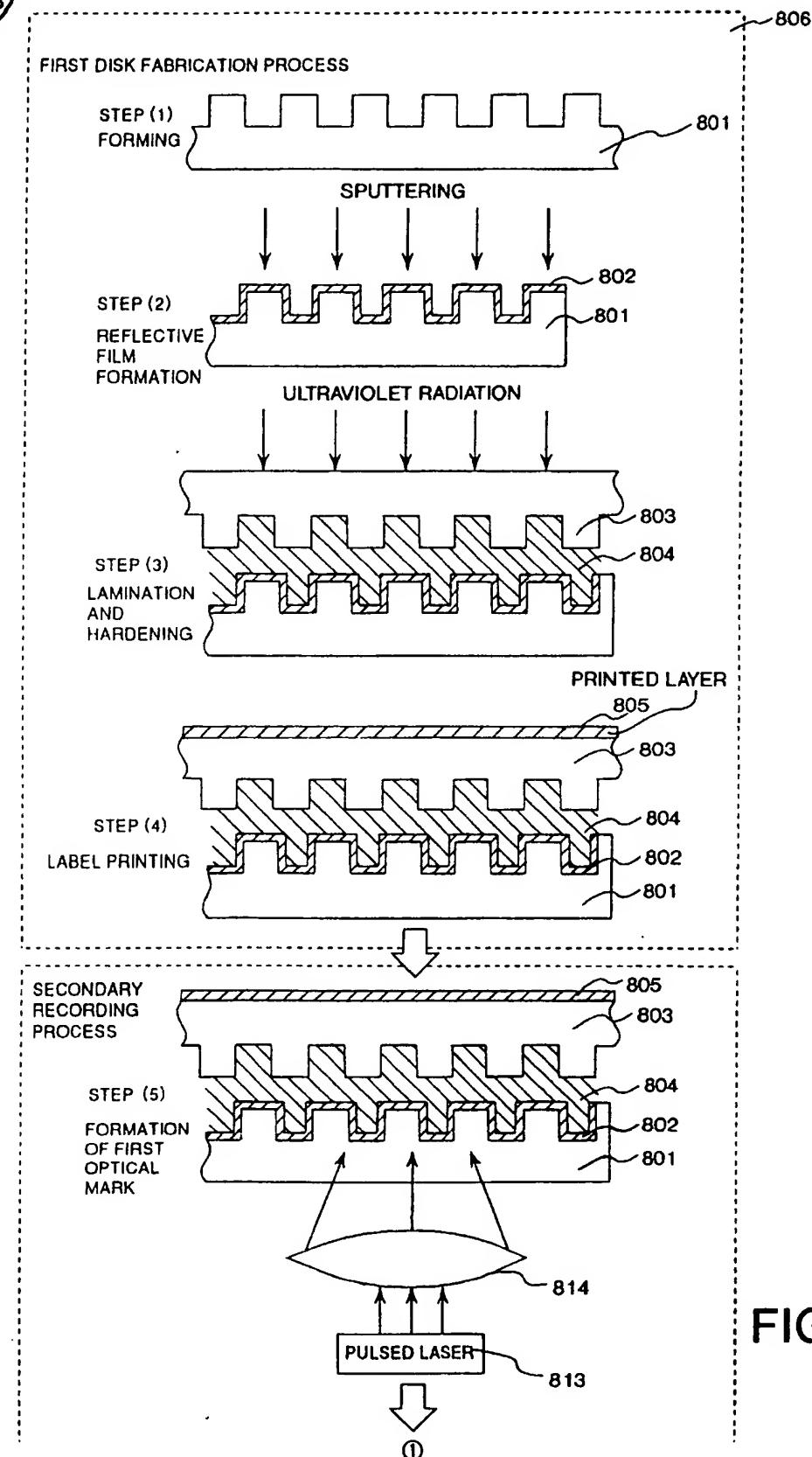
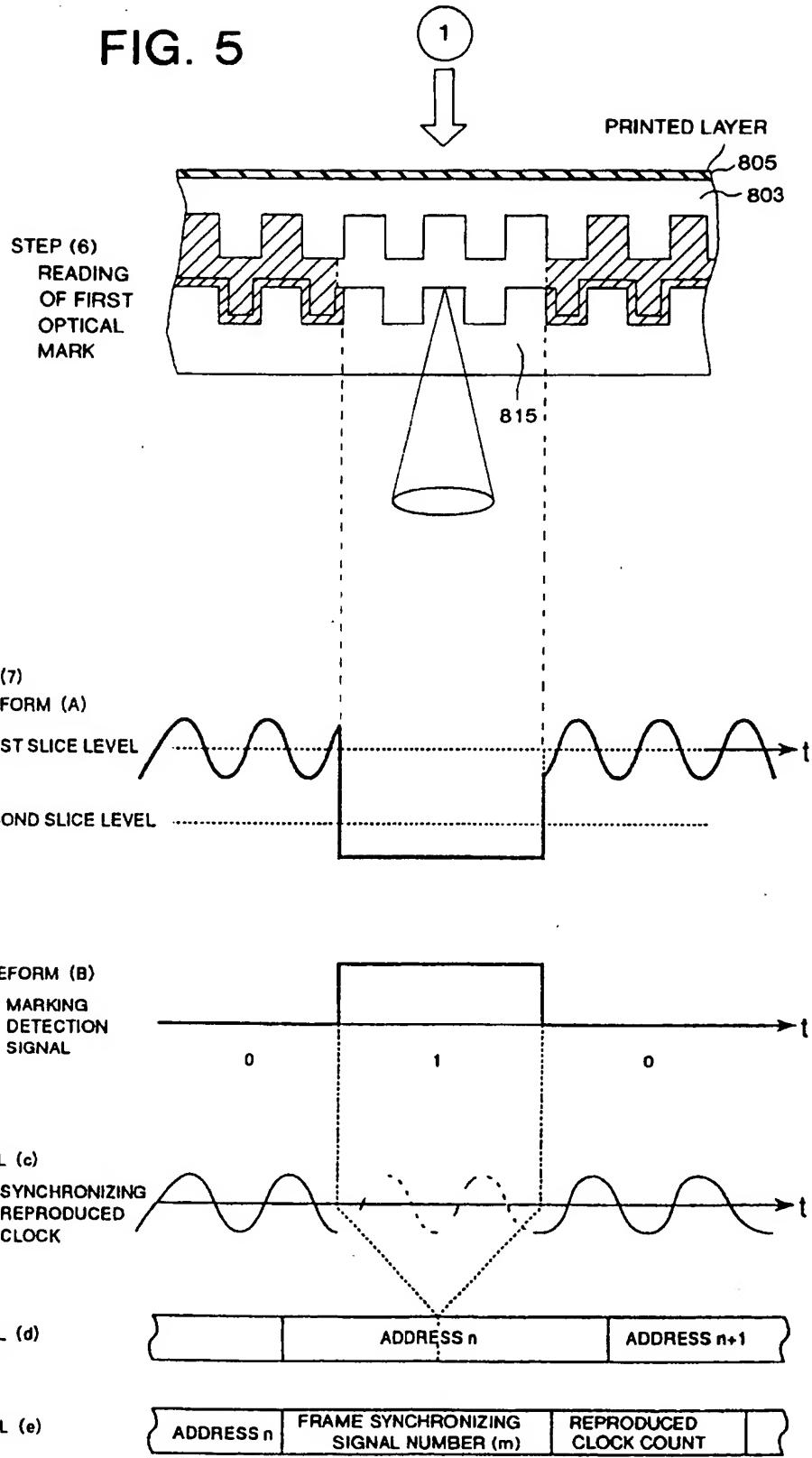




FIG. 5



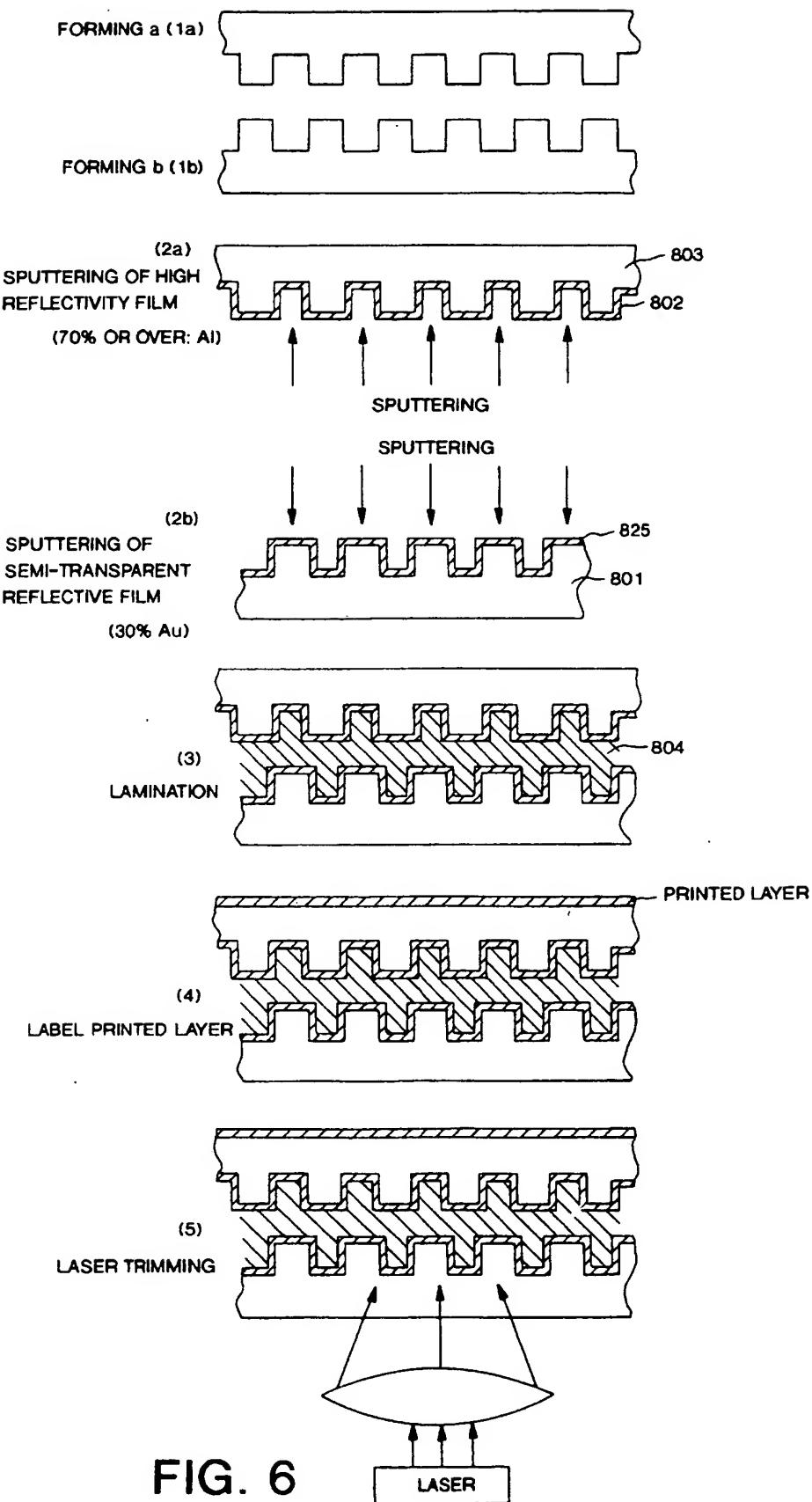


FIG. 6

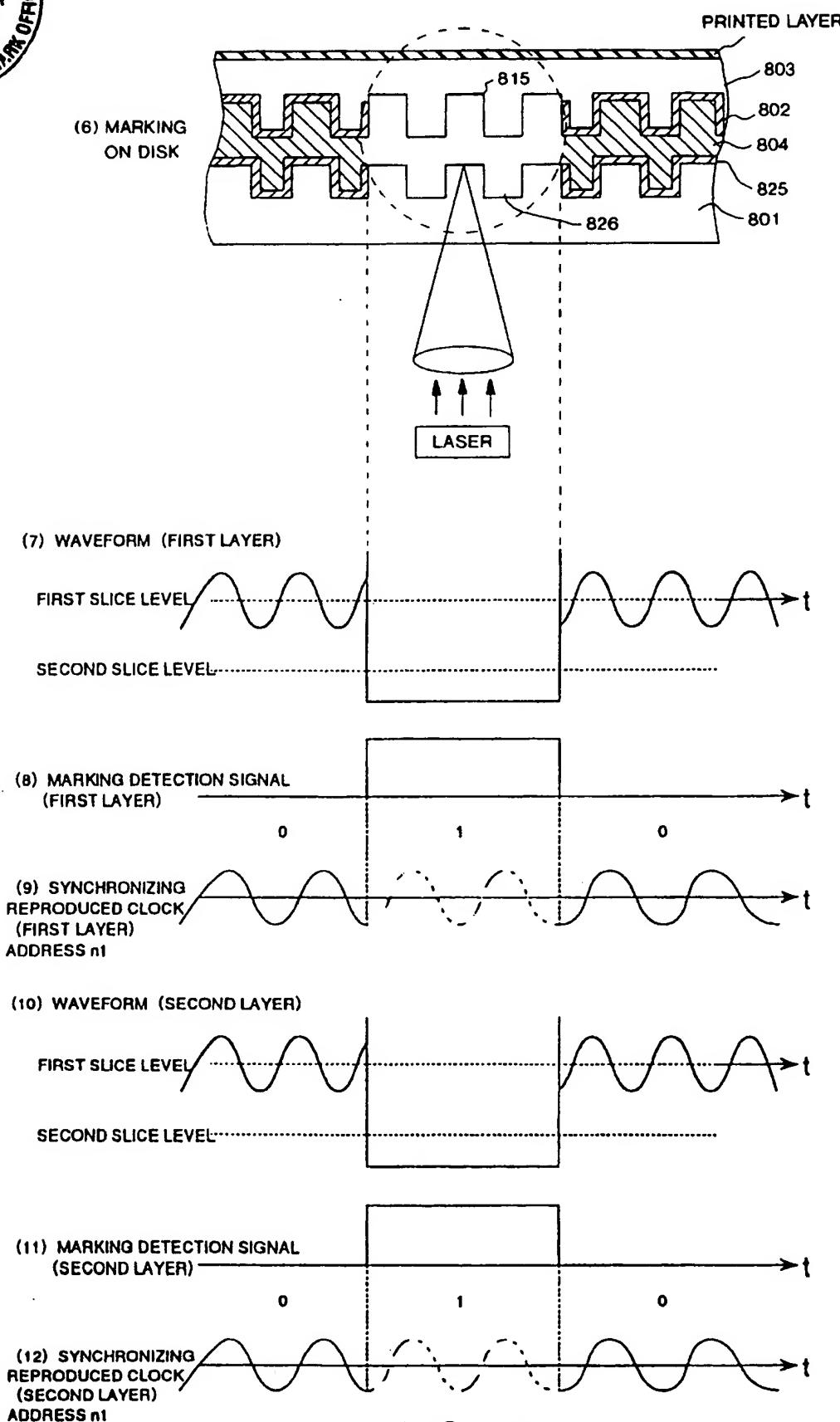


FIG. 7

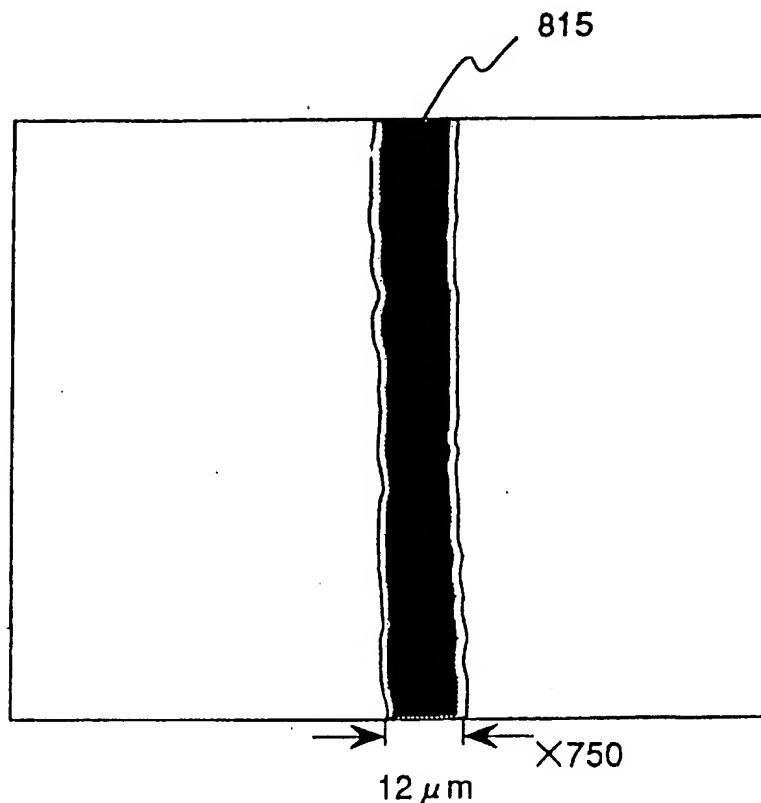


FIG. 8A

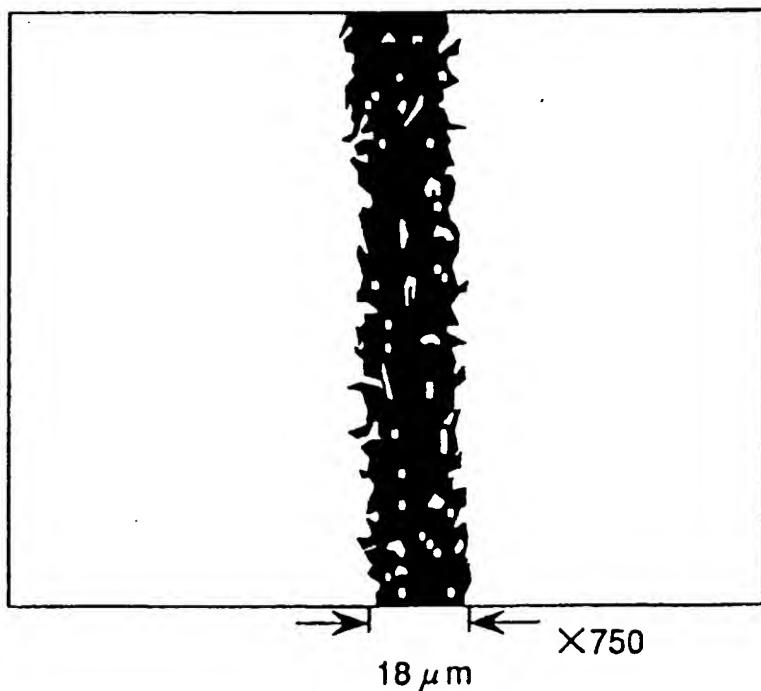
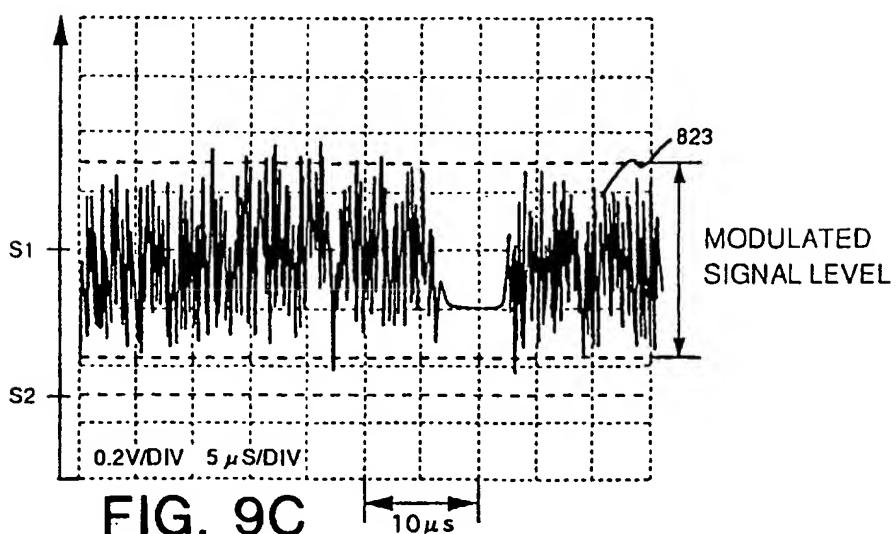
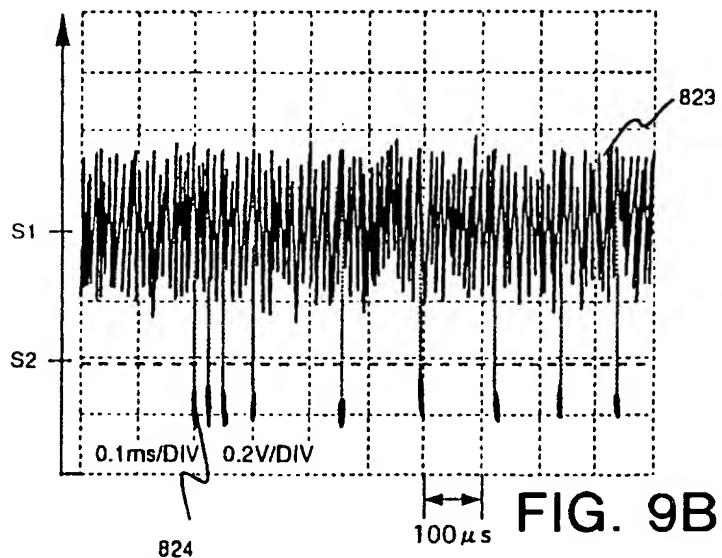
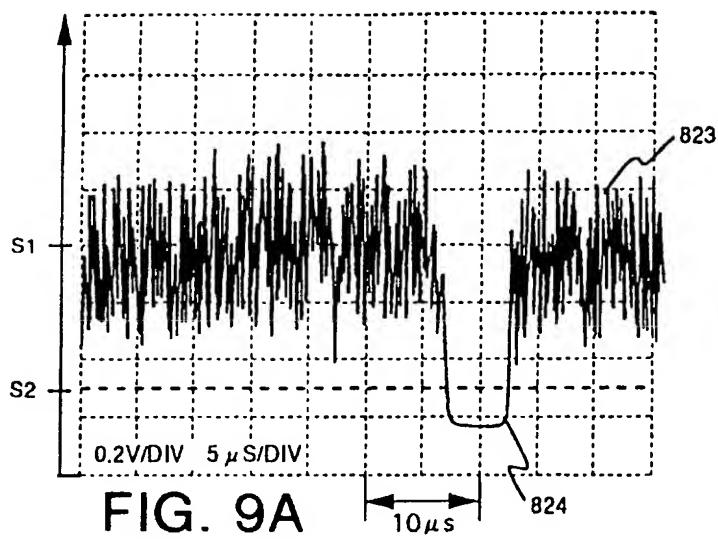


FIG. 8B



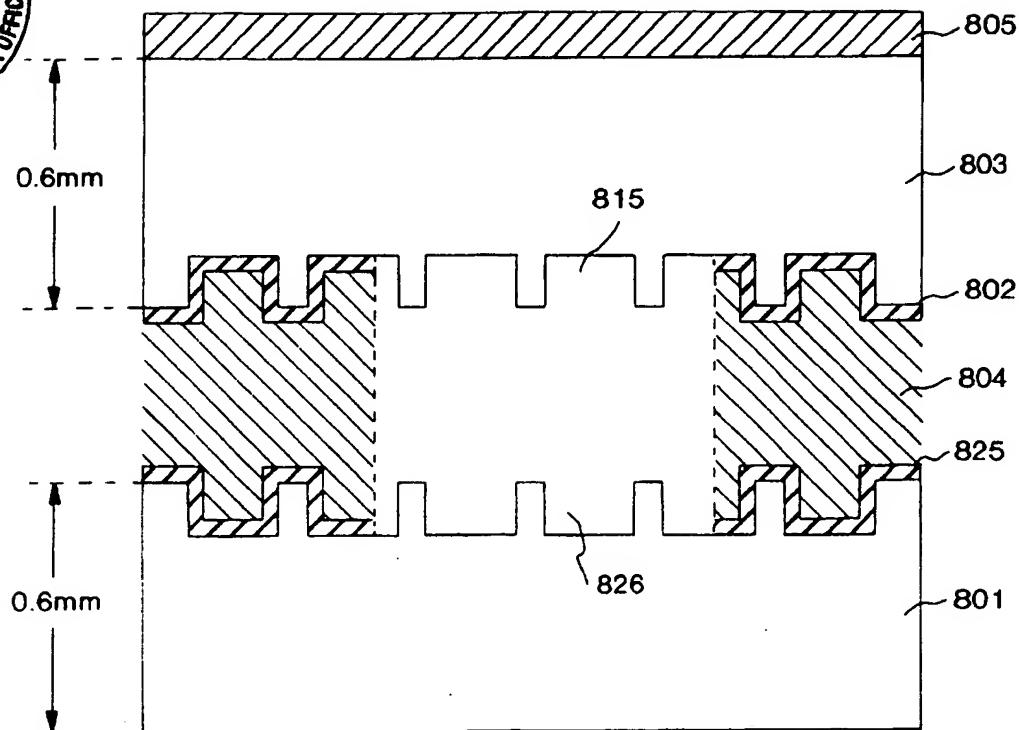


FIG. 10A

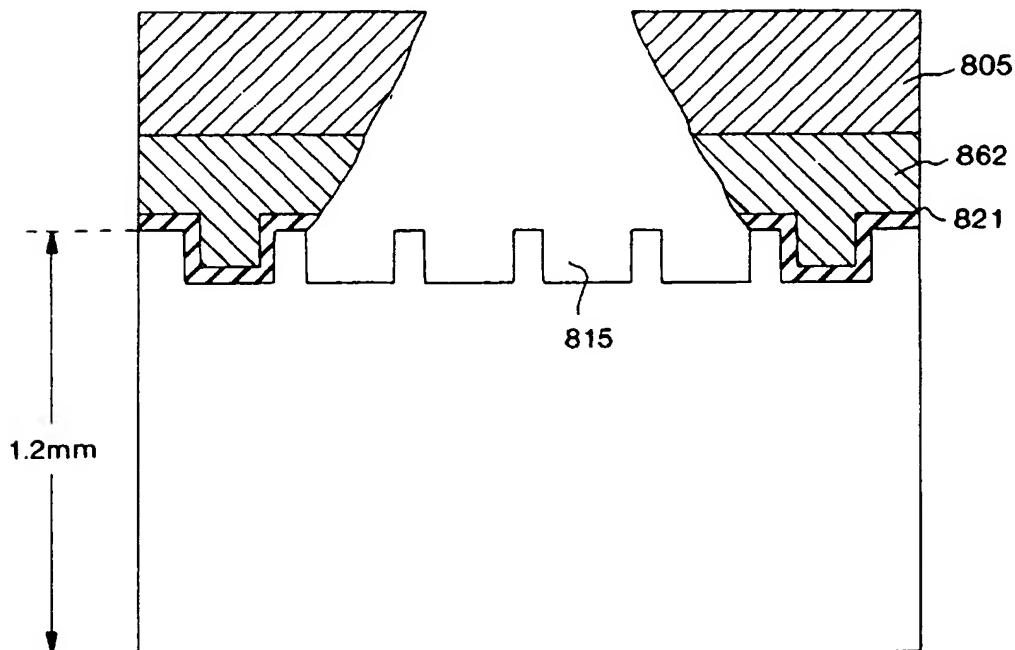


FIG. 10B

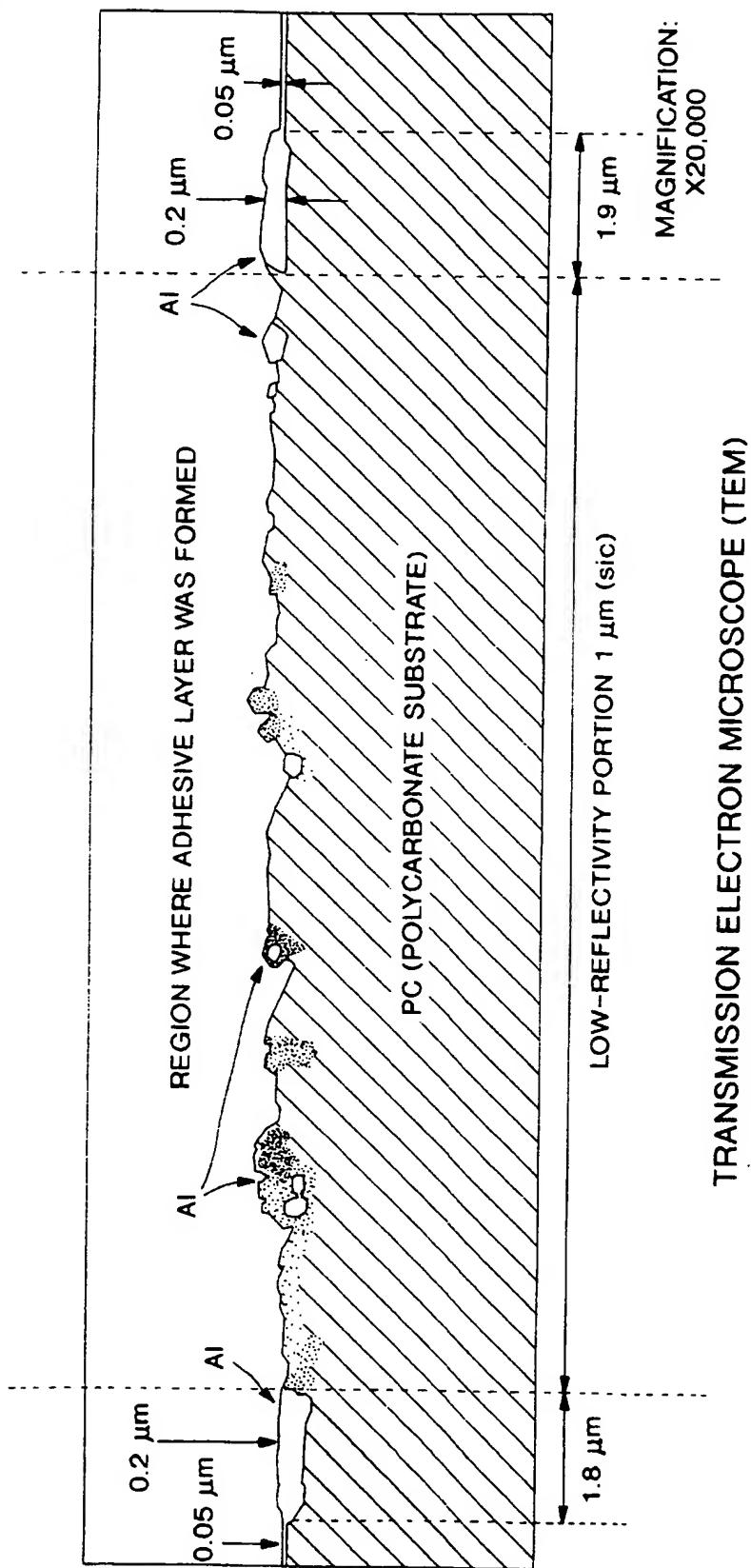


FIG. 11

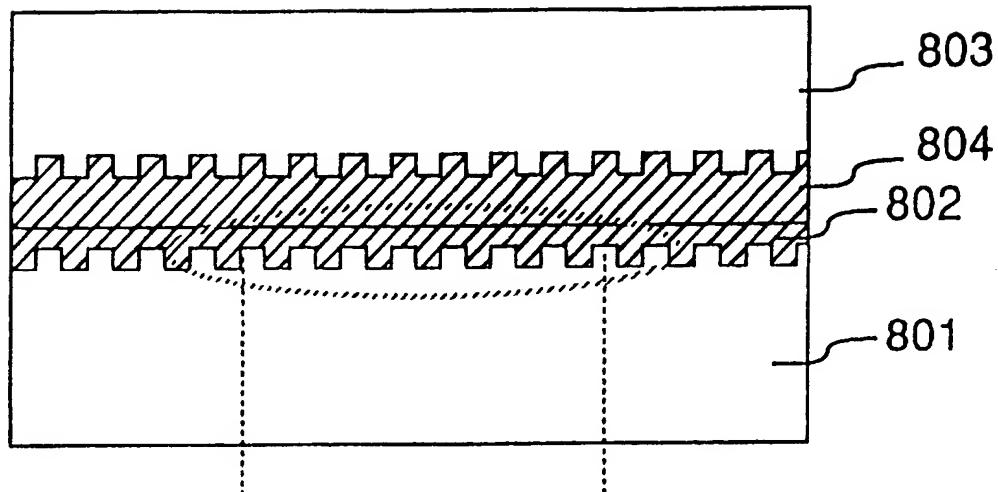


FIG. 12A

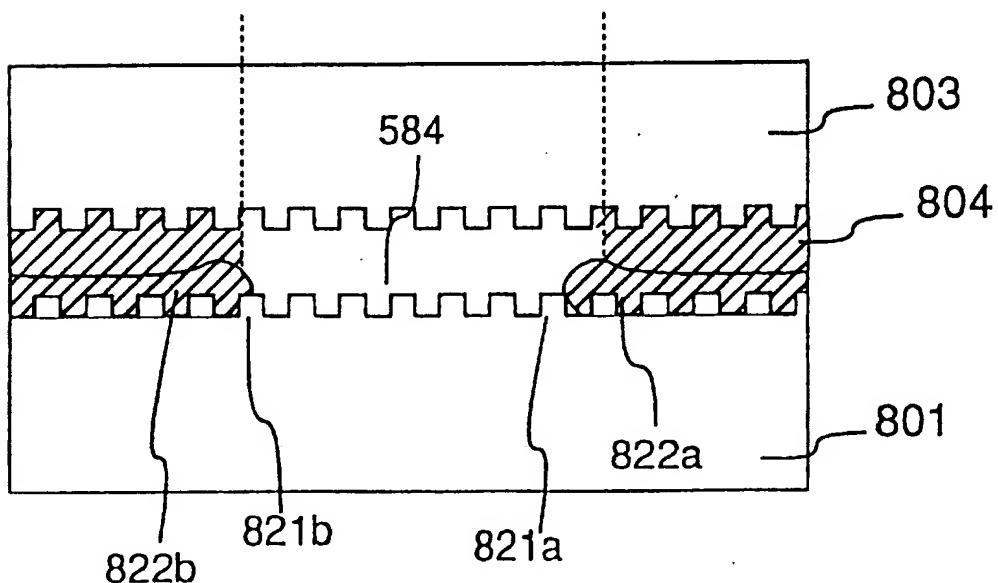


FIG. 12B

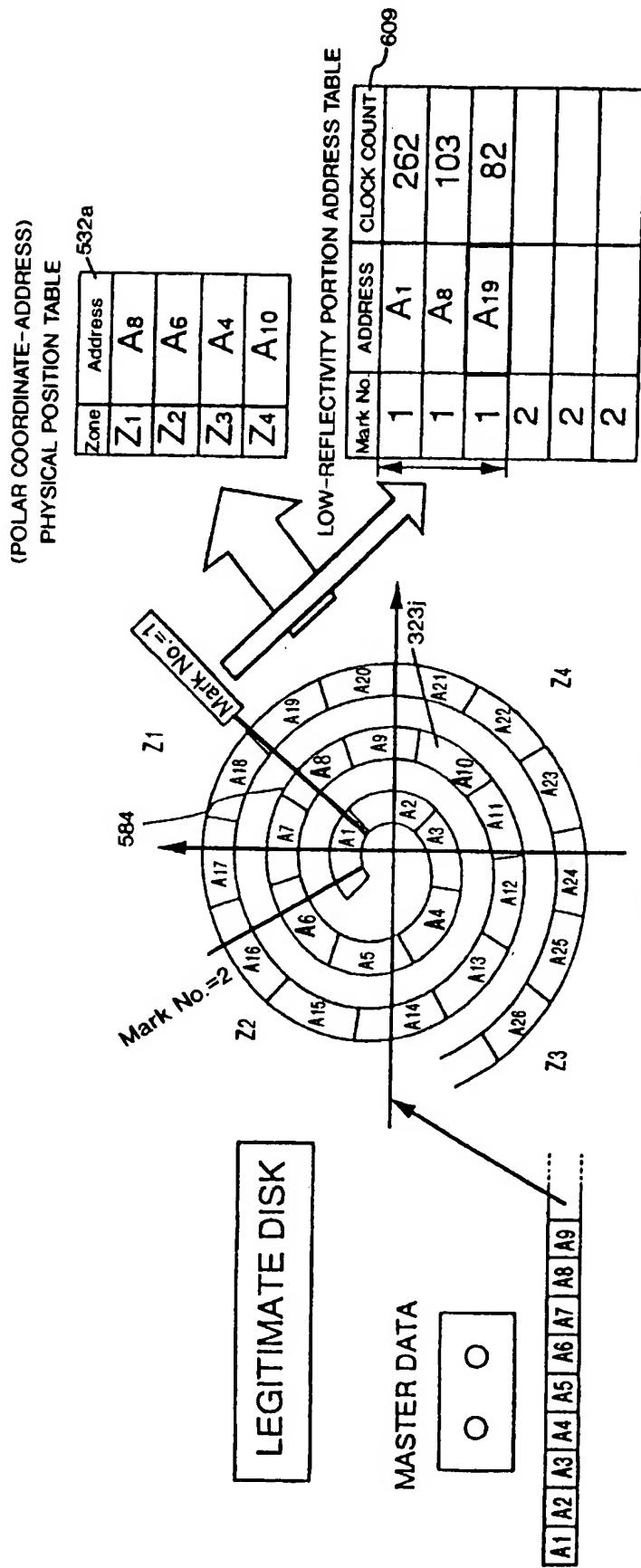


FIG. 13A



MASTER DATA

○ ○

A1 A2 A3 A4 A5 A6 A7 A8 A9

ILLEGALLY DUPLICATED CD

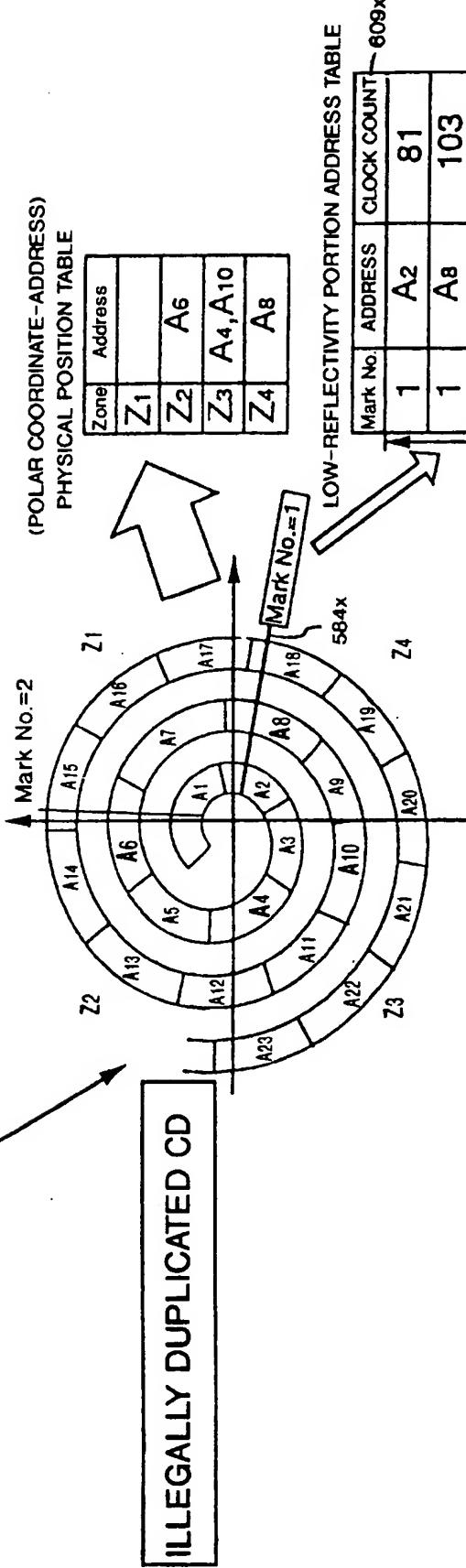
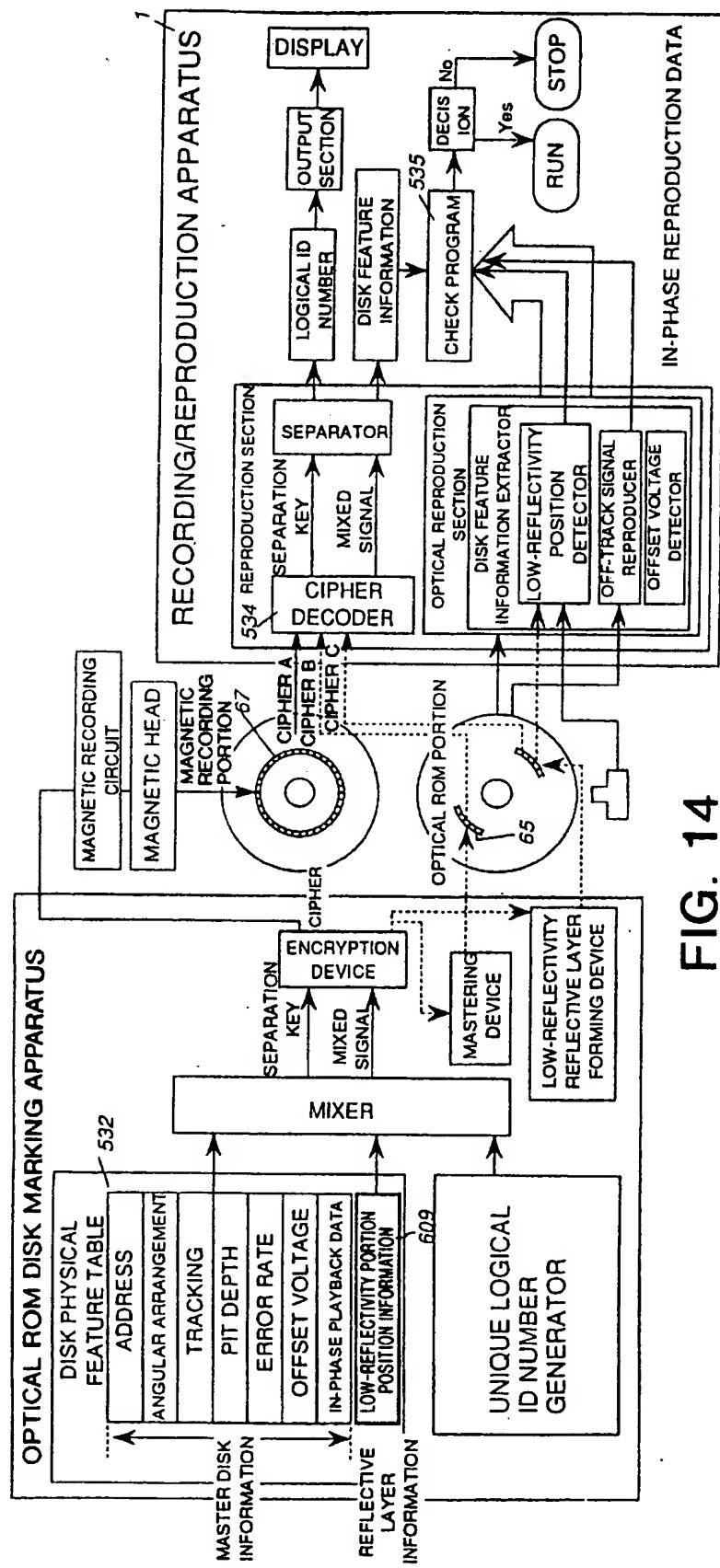


FIG. 13B



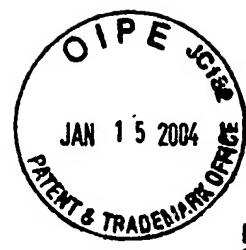


FIG. 15

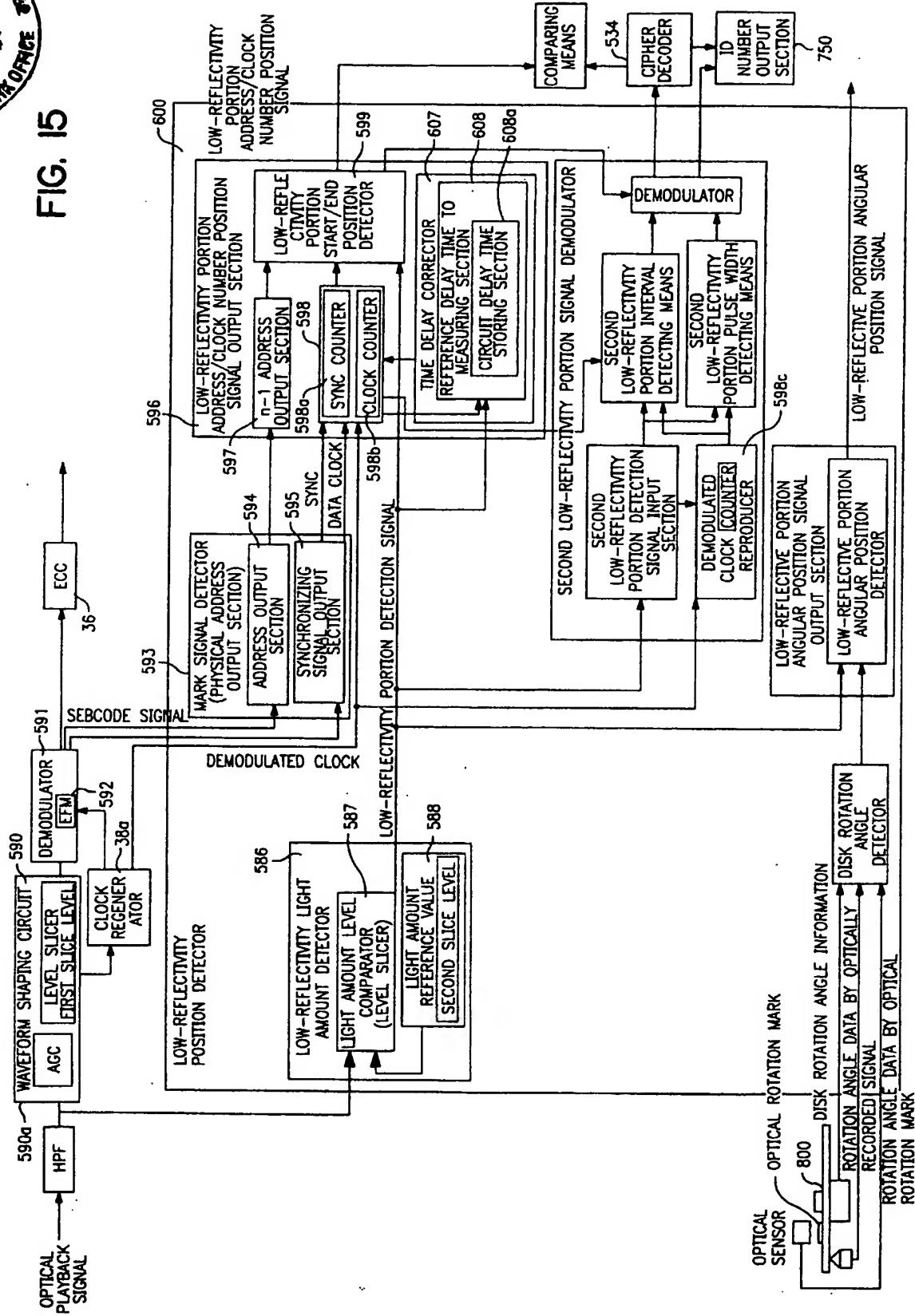
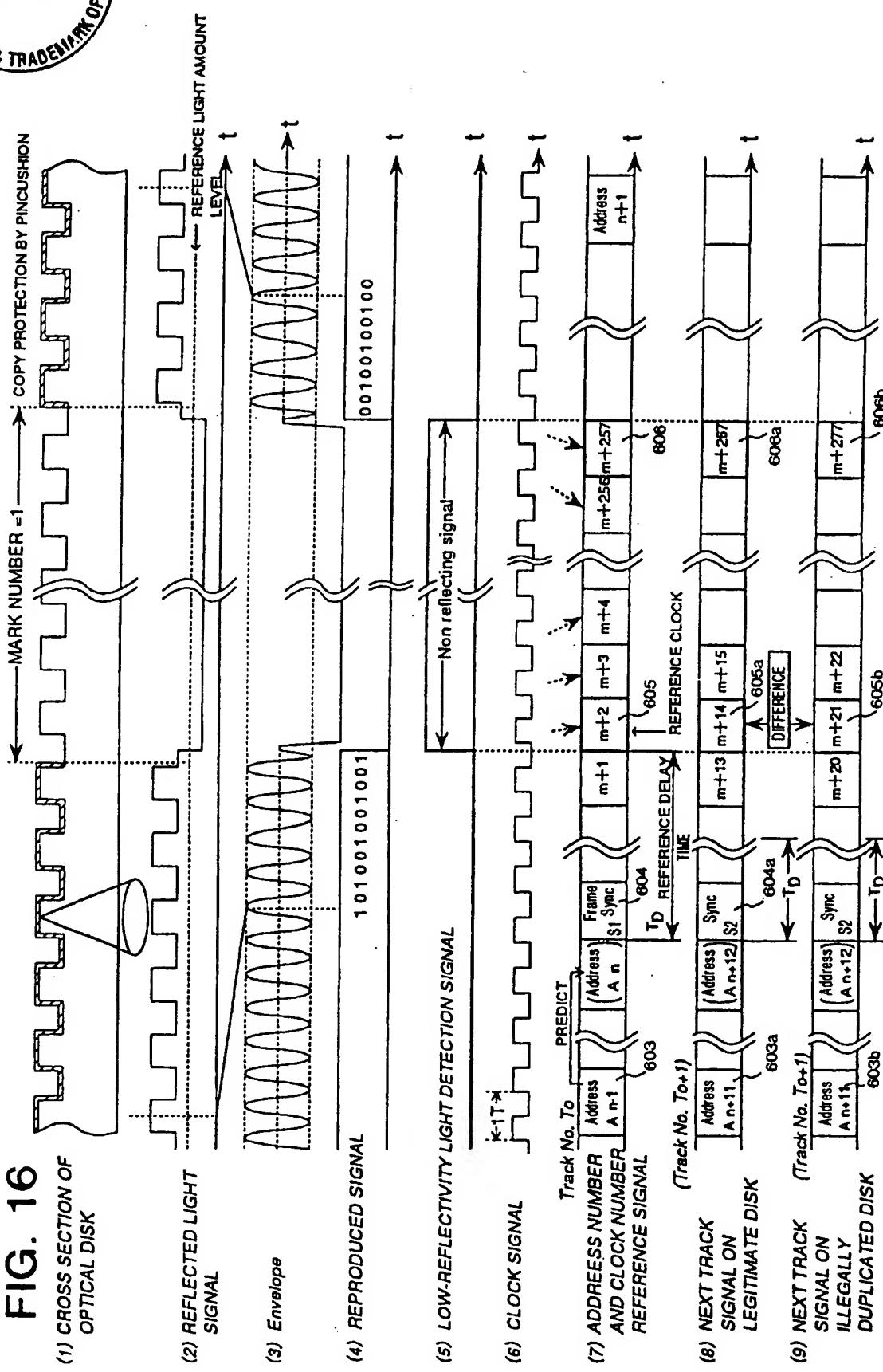




FIG. 16

(1) CROSS SECTION OF
 OPTICAL DISK





LEGITIMATE DISK

LOW-REFLECTIVITY PORTION ADDRESS TABLE

MARK NO.	START POSITION	END POSITION	CLOCK NUMBER	Sync No	ADDRESS	CLOCK NUMBER
1 A n	s_1	$m+2$	n		$m+257$	
1 A $n+12$	s_2	$m+14$		$n+12$	$m+267$	
1 A $n+23$		$m+25$			$m+300$	
:	:	:				
2 A $n+1$	$m+15$	$n+1$			$m+160$	
2 A $n+13$		$m+85$			$n+13$	
2 A $n+24$		$m+68$			$m+250$	
10 A	$n+9$				$m+210$	
10						

LOW-REFLECTIVITY PORTION ADDRESS TABLE

MARK NO.	START POSITION	END POSITION	CLOCK NUMBER	Sync No	ADDRESS	CLOCK NUMBER
1	1	n	s_1		$m+2$	n
1	1	$n+12$	s_2		$m+21$	$n+12$
1	1	$n+22$			$m+4$	$n+22$
:	:					
2	2	$n+1$			$m+1$	$m+36$
2	2	$n+13$			$m+13$	$n+13$
2	2	$n+25$			$n+25$	
10	10					

FIG. 17



FLOWCHART FOR DISK CHECK BY ONE-DIRECTION
FUNCTION (RSA ALGORITHM OR ELLIPTIC FUNCTION)

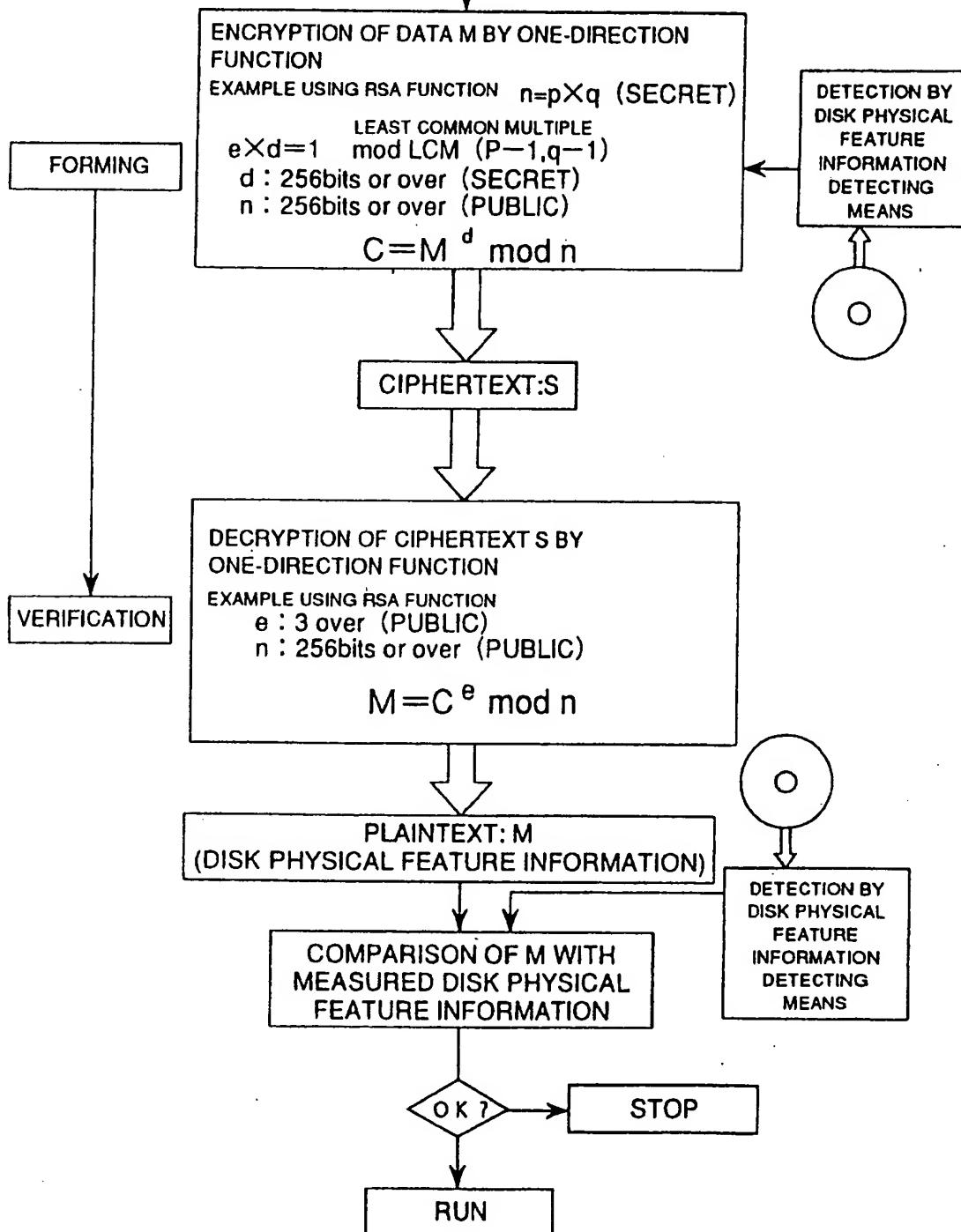


FIG. 18



DIAGRAM SHOWING DIFFERENT PHYSICAL LOCATIONS OF LOGICAL ADDRESSES ON DIFFERENT MASTER DISKS
PHYSICAL LOCATIONS OF THE SAME LOGICAL ADDRESSES ON MASTER DISKS
 PRODUCED ON DIFFERENT DAYS

FIRST MASTER DISK ○ CLV=1.231m/sec(SRC##2 MISI)
 SECOND MASTER DISK ● CLV=1.245m/sec(FZ-SJ1951A 3)
 THIRD MASTER DISK ▲ CLV=1.308m/sec(FZ-SJ1951AT 8)

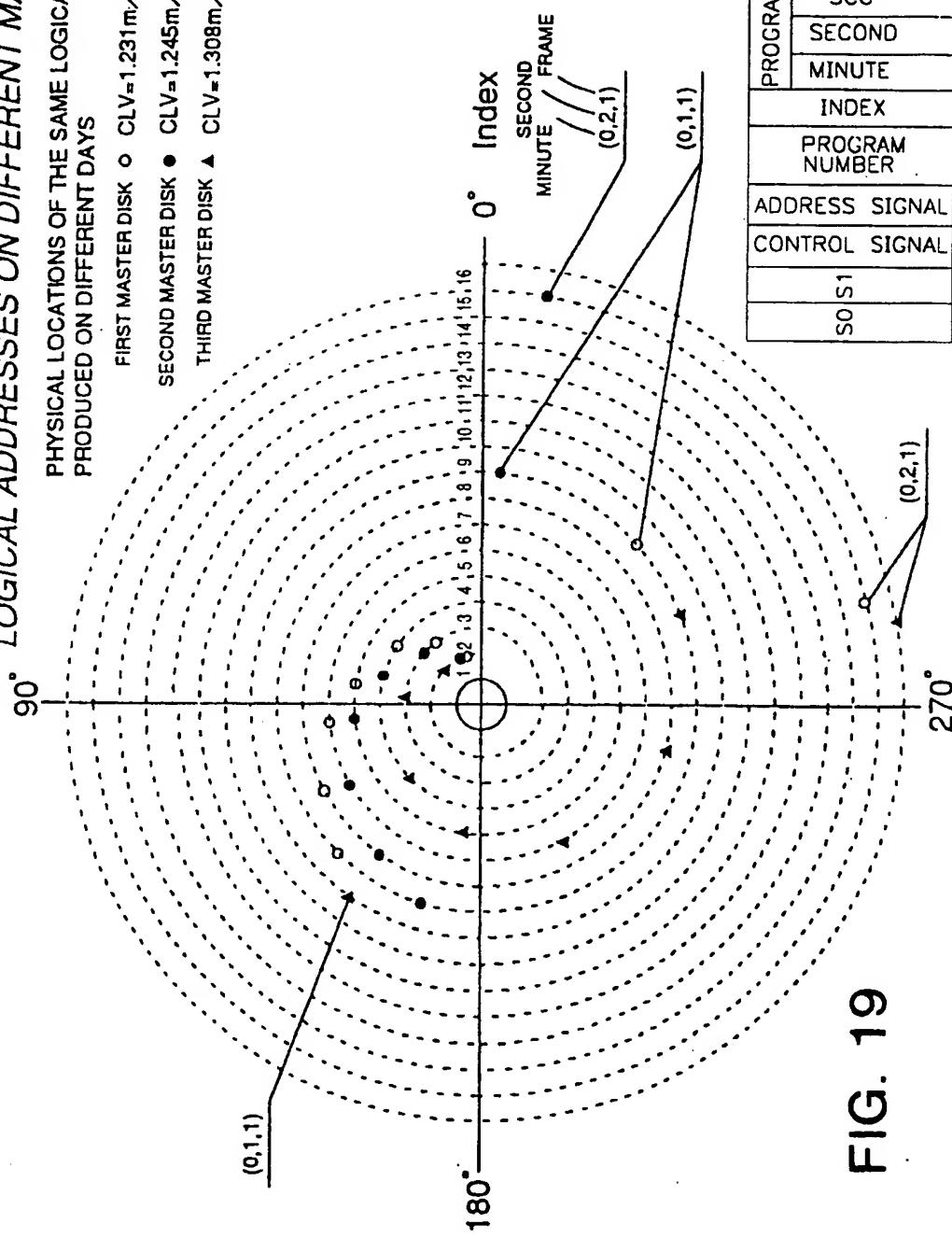


FIG. 19

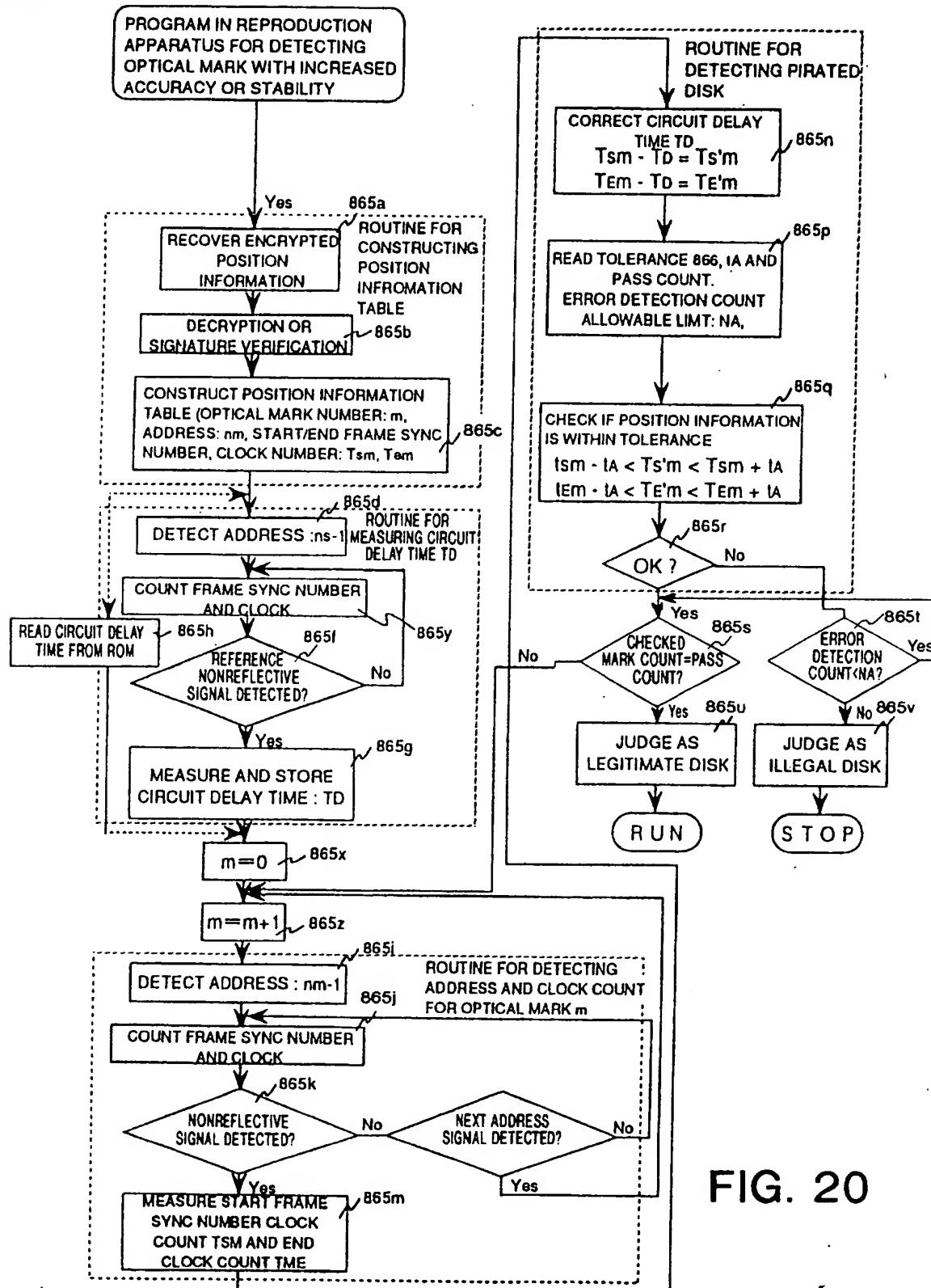


FIG. 20

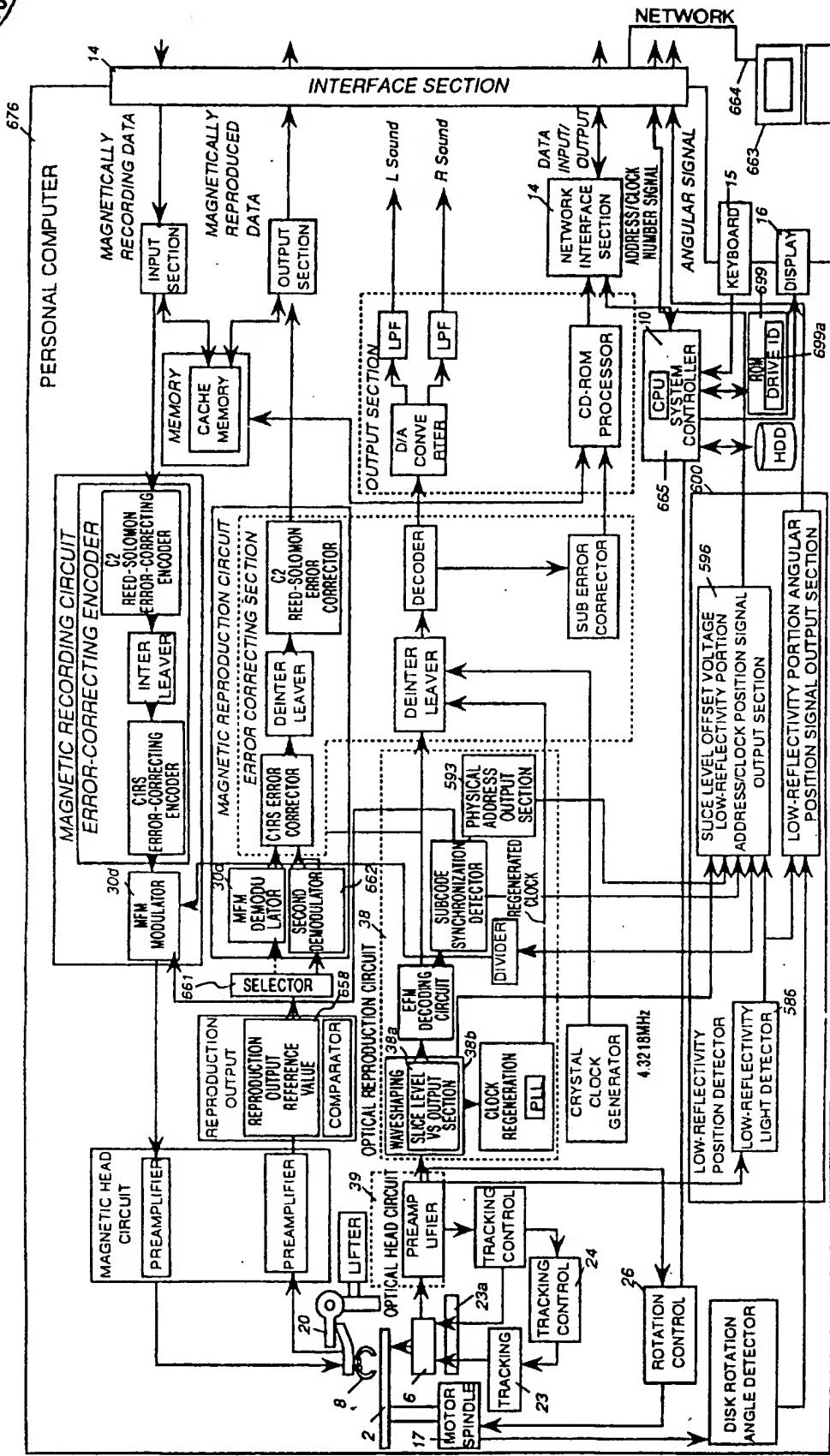


FIG. 21

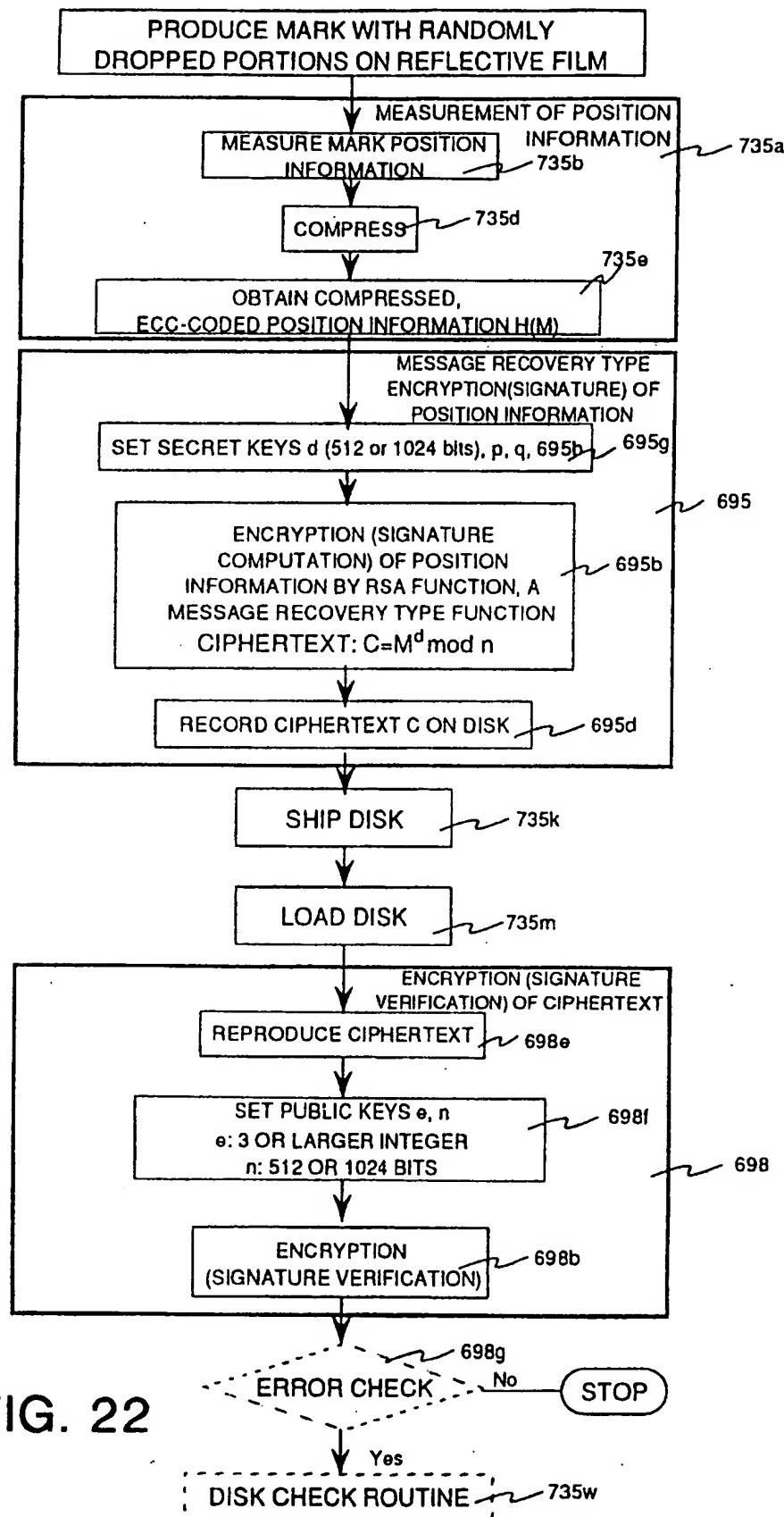


FIG. 22

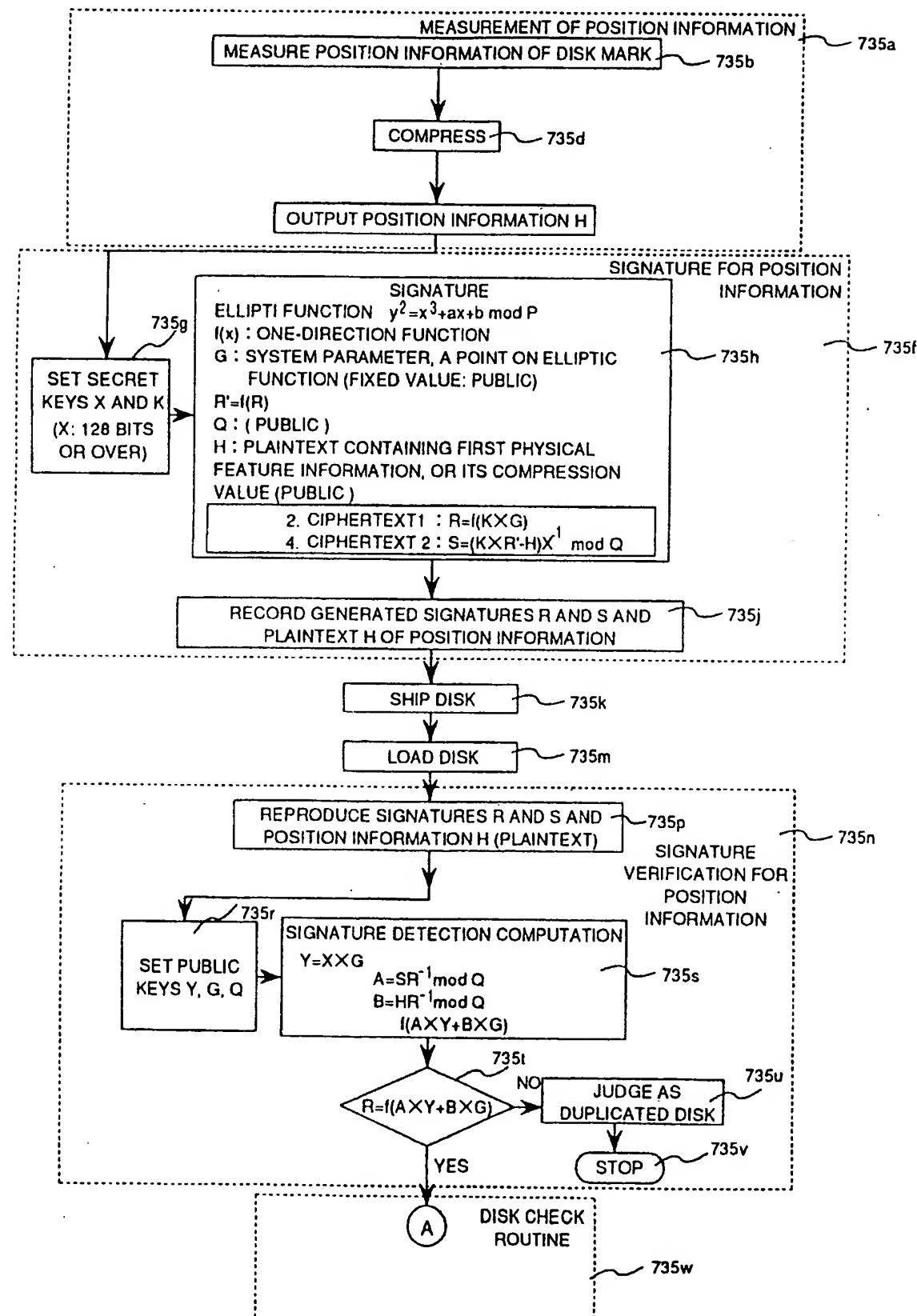


FIG. 23

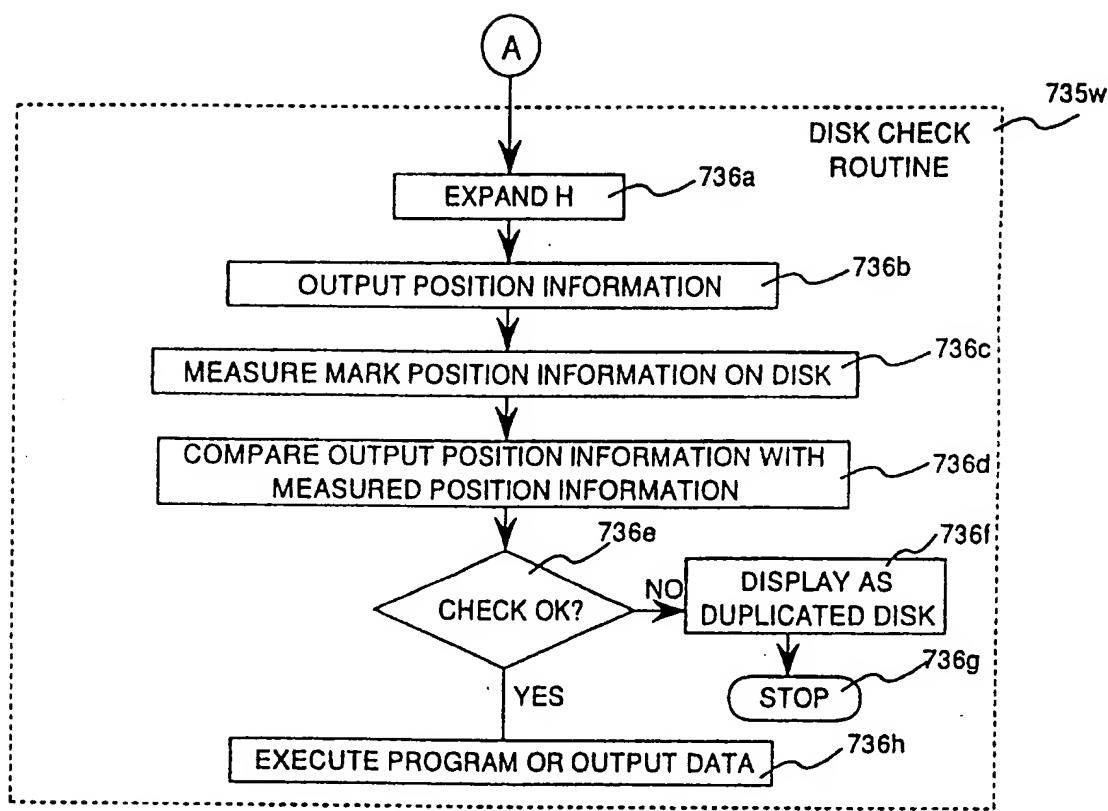


FIG. 24



INFORMATION PROCESSING APPARATUS 676

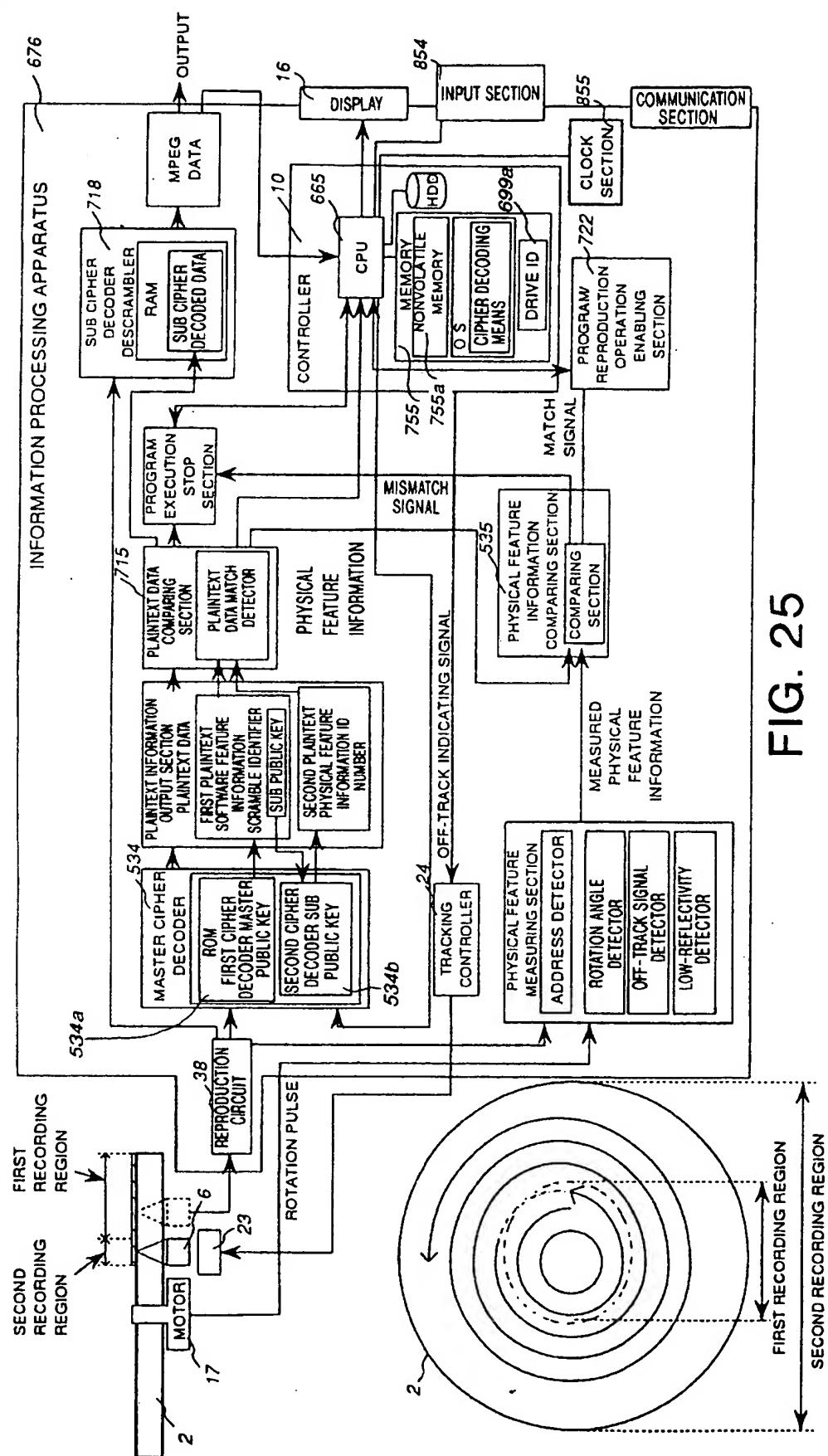
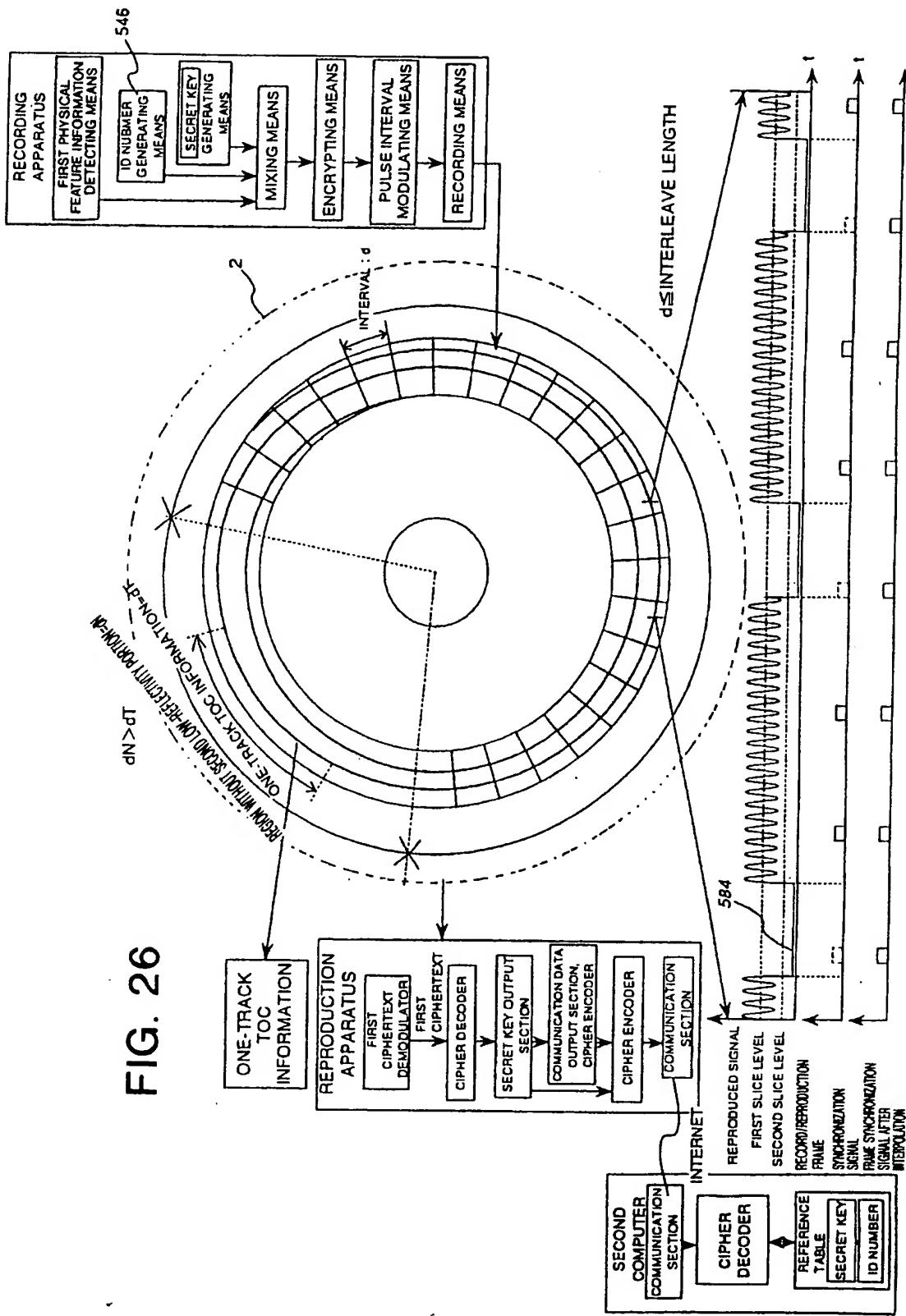
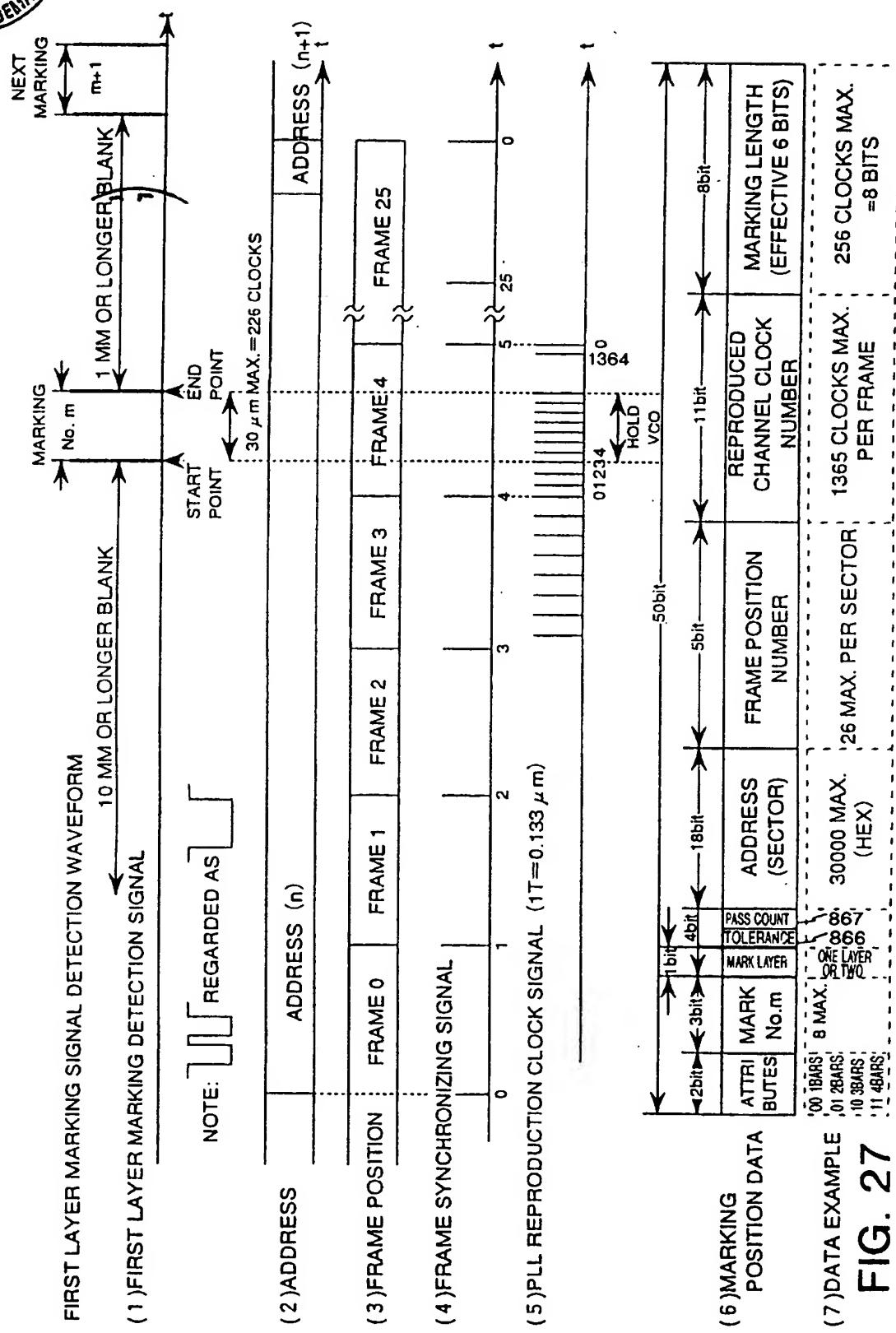


FIG. 25



FIG. 26





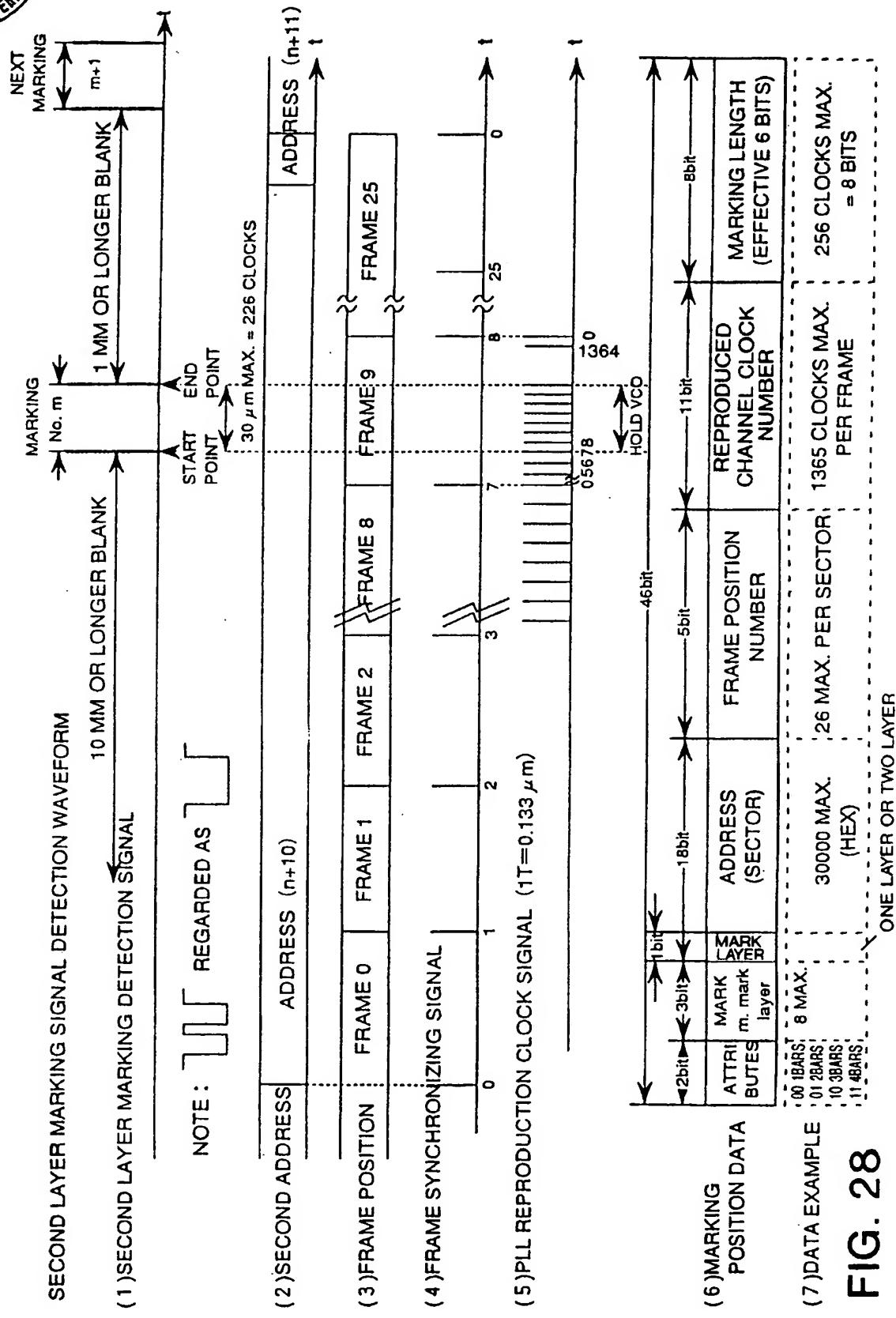


FIG. 28

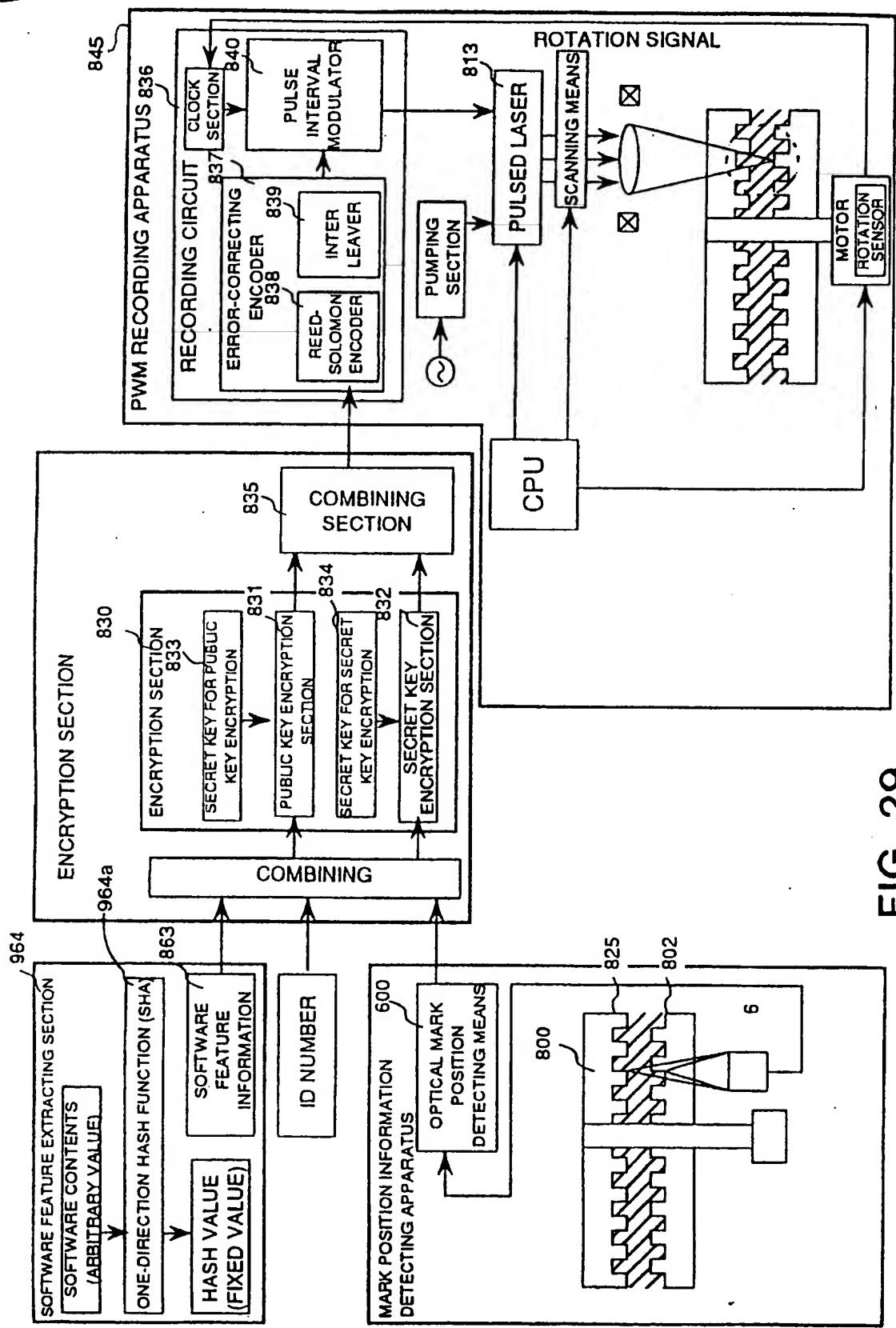


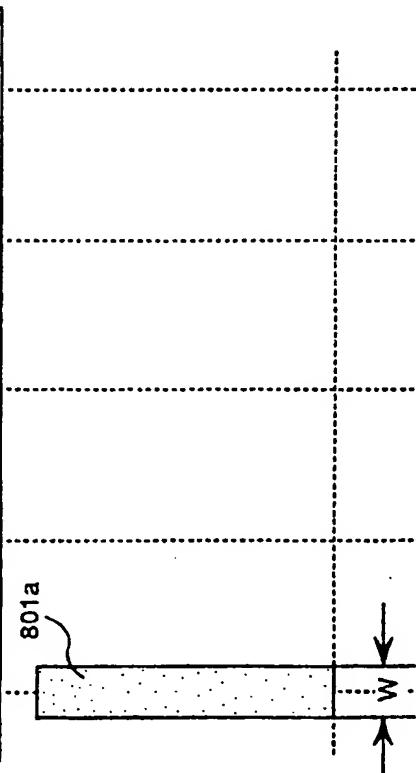
FIG. 29

O I P E J C I E
JAN 15 2004
PATENT & TRADEMARK OFFICE

Application No. 10/017,973
Docket No. MTS-520USS
Customer No. 23122

CODE CLASSIFIED BY PULSE INTERVAL, 4-VALUE PWM RECORDING

CODE	00	01	10	11
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BARCODE LINE WIDTH VERSUS RECORDING DENSITY 842

LINE WIDTH W (μ m)	PERIOD T (μ m)	RECORDING DENSITY μ m/bit	MAXIMUM RECORDING CAPACITY ONE RING	LENGTH OF 1 KBITS mm
1 μ m	2 μ m	2.55 μ m	56Kbit	2.5mm
3 μ m	6 μ m	7.5 μ m	28.2Kbit	5mm
5 μ m	10 μ m	12.5 μ m	11.2Kbit	12.5mm
10 μ m	20 μ m	25 μ m	5.6Kbit	25mm
20 μ m	40 μ m	50 μ m	2.82Kbit	50mm

$1T = 0.13 \mu$ m

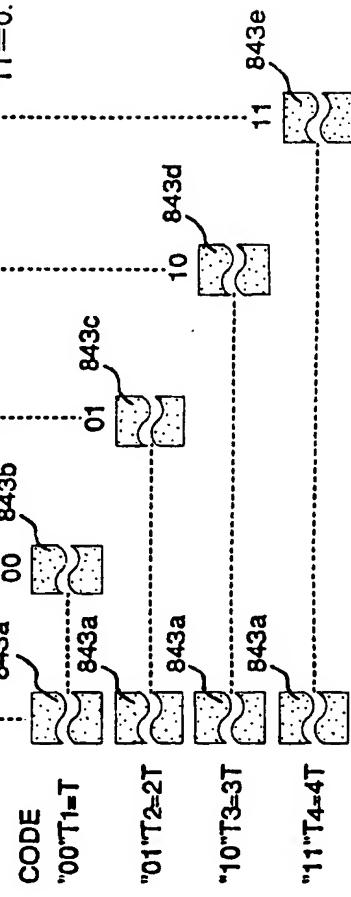


FIG. 30

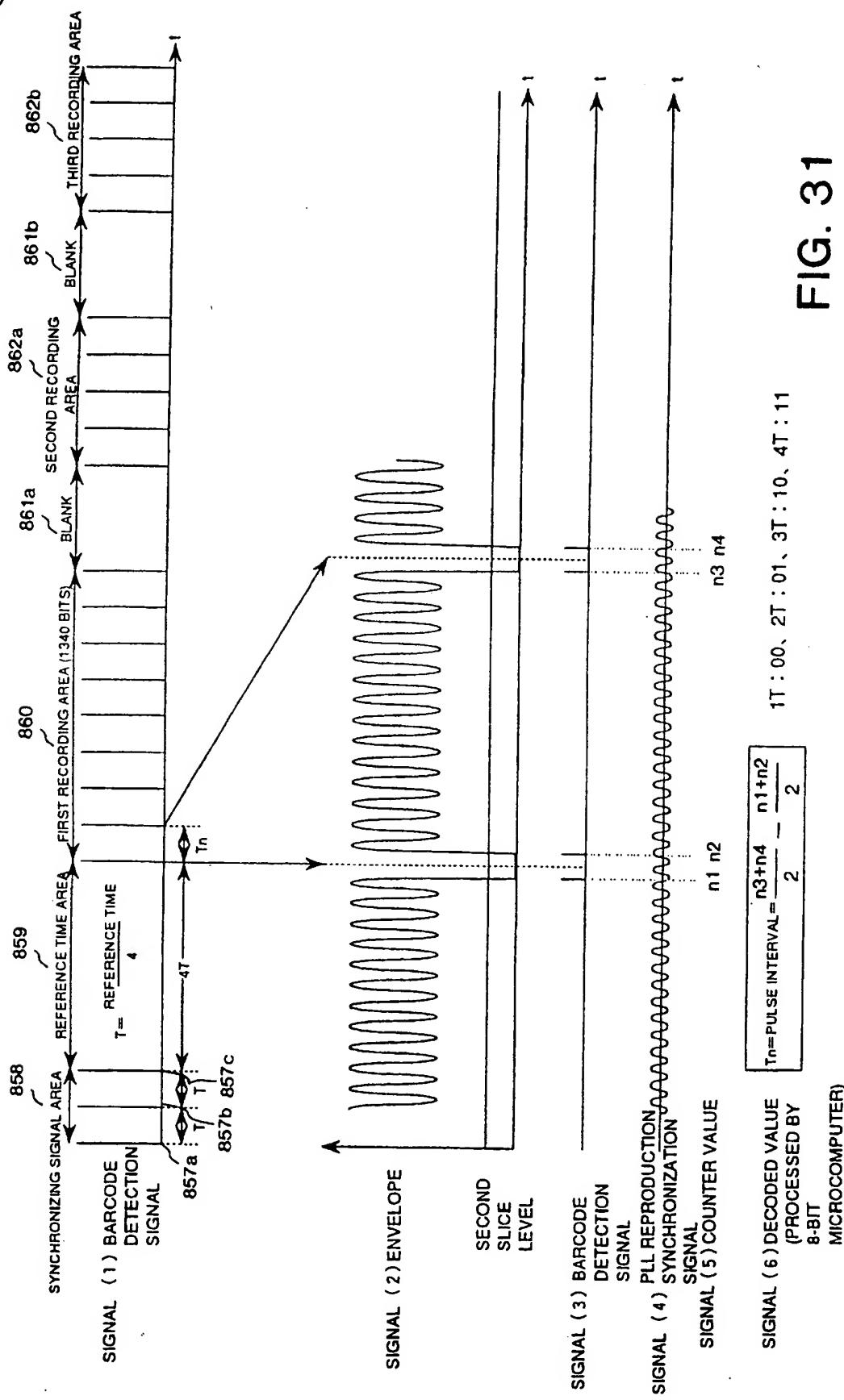


FIG. 31

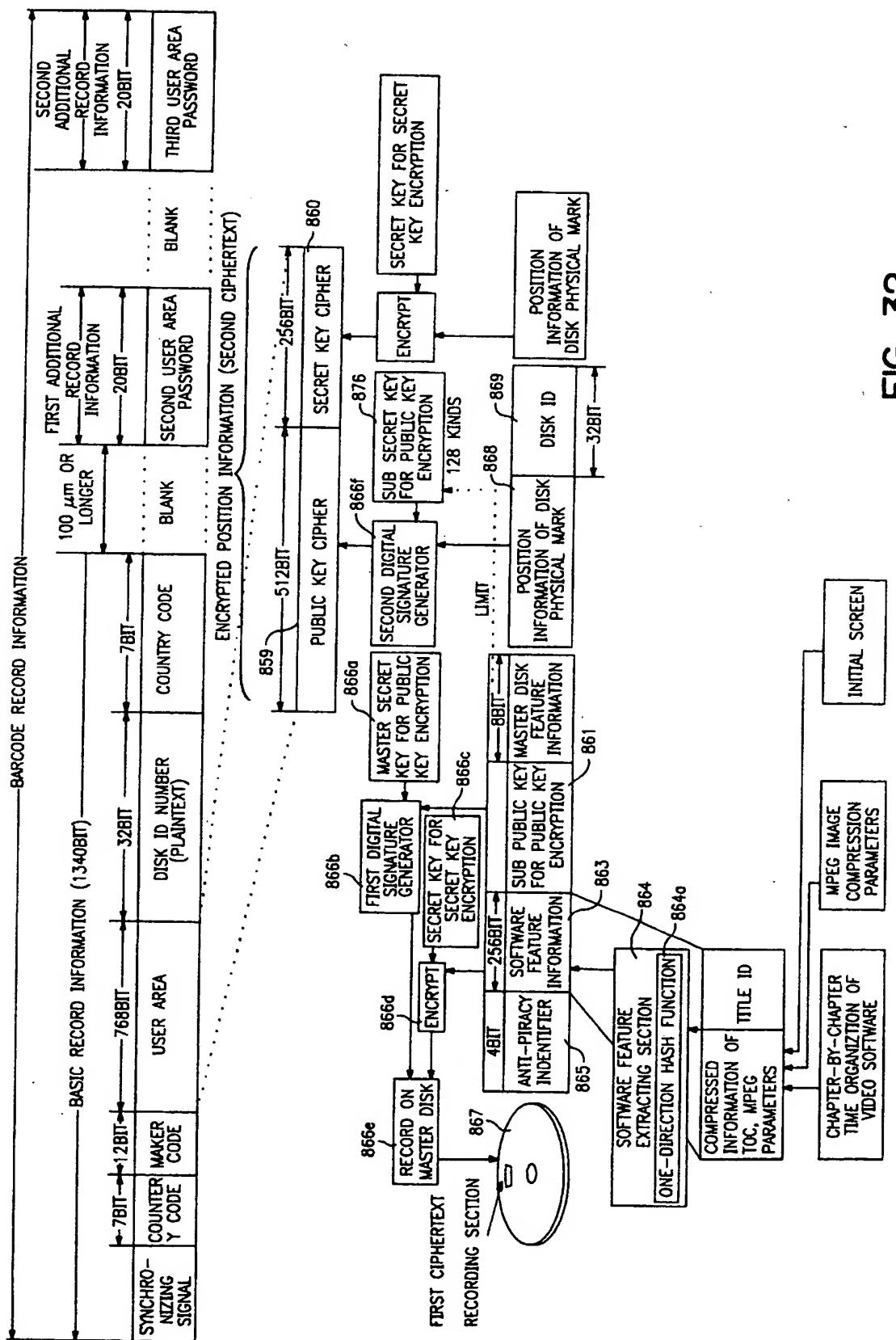


FIG. 32

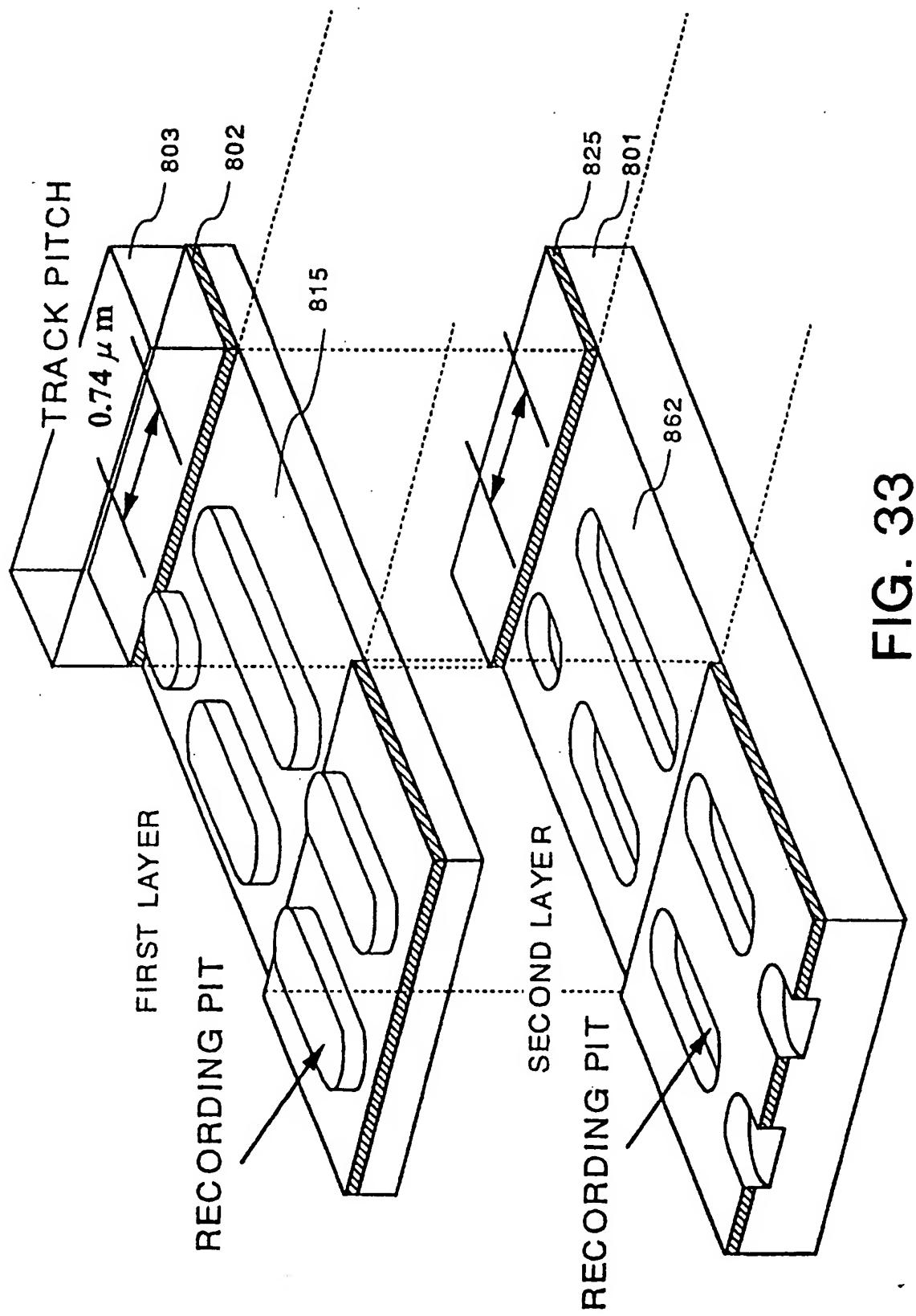
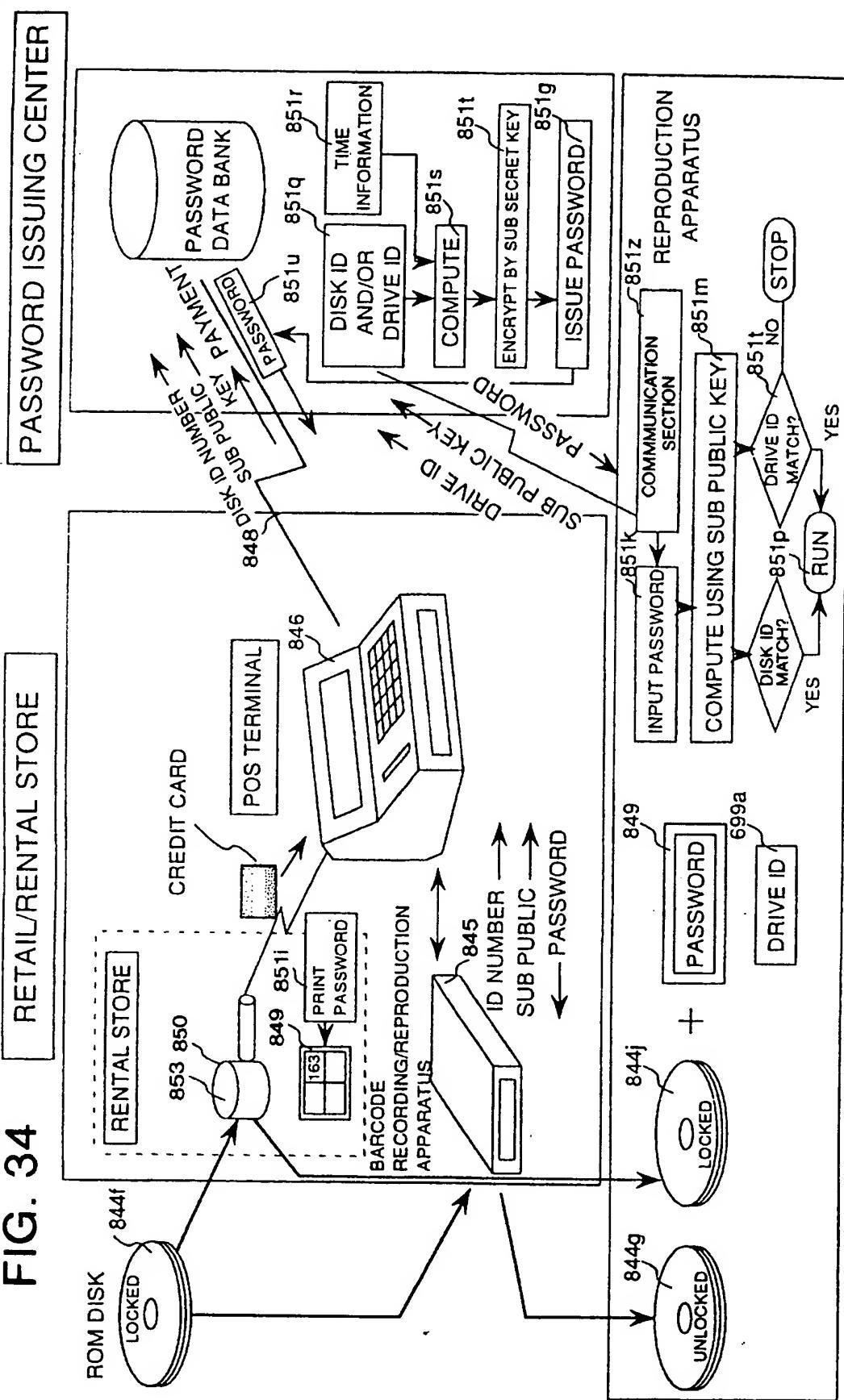




FIG. 34 RETAIL/RENTAL STORE



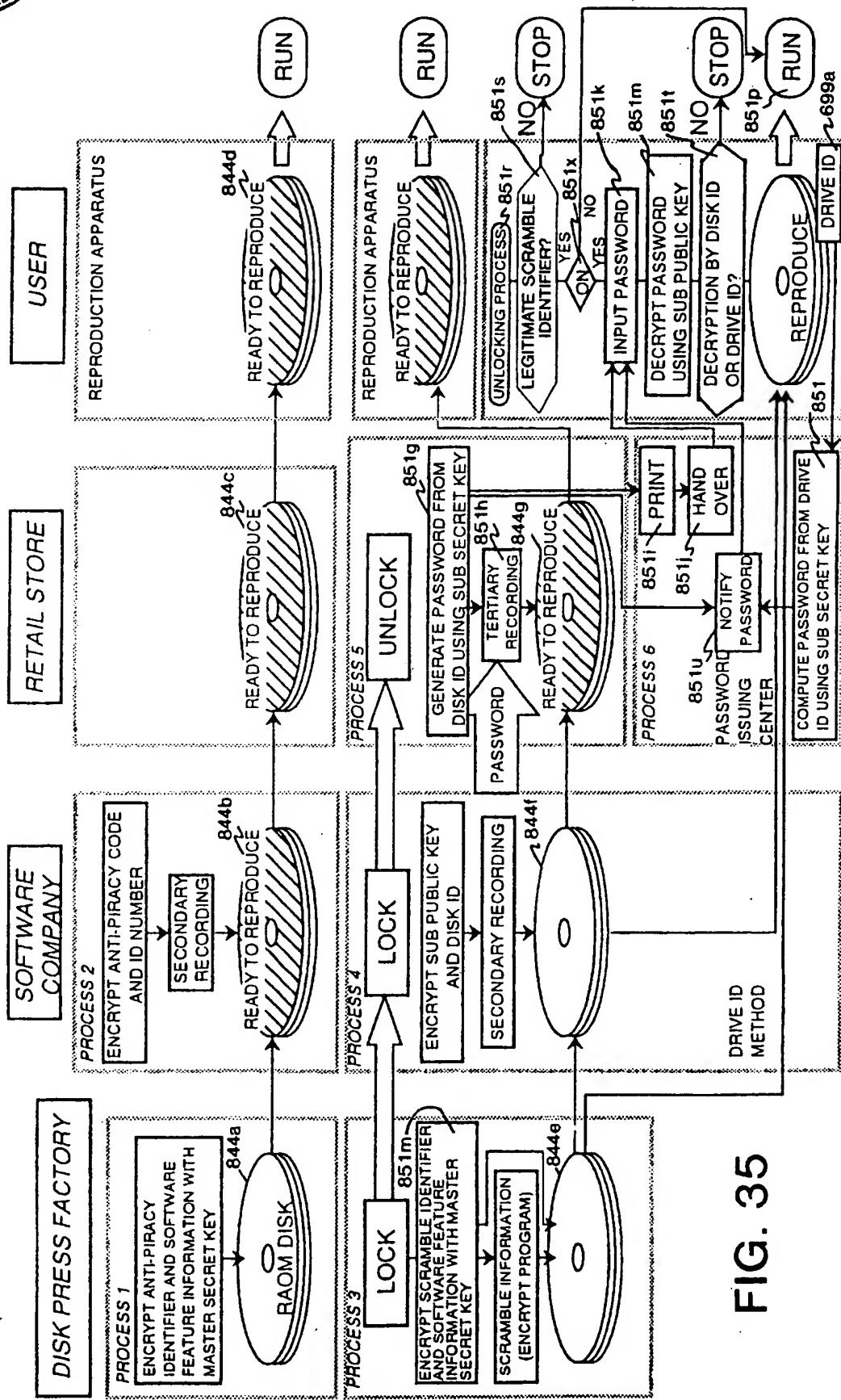
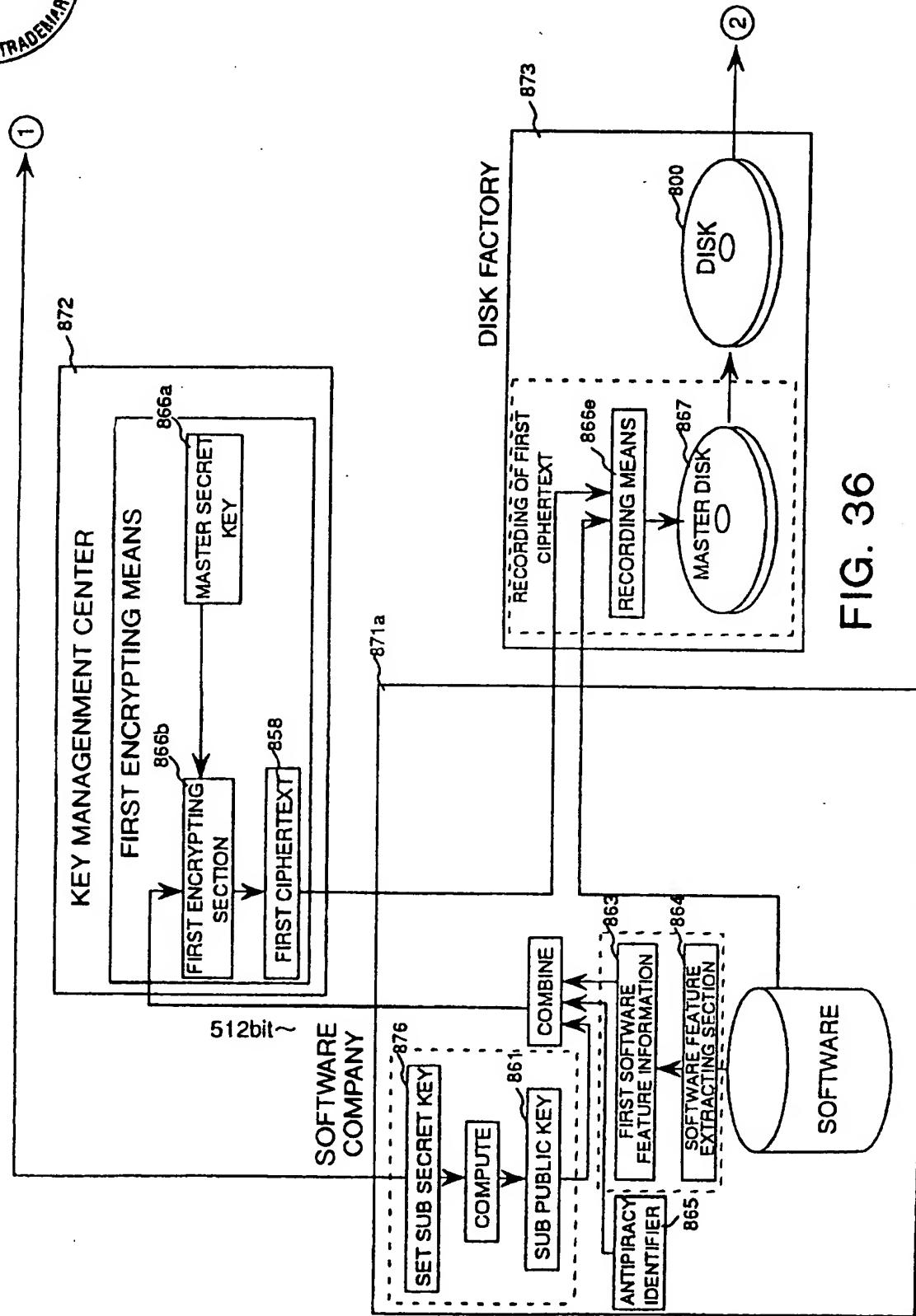


FIG. 35



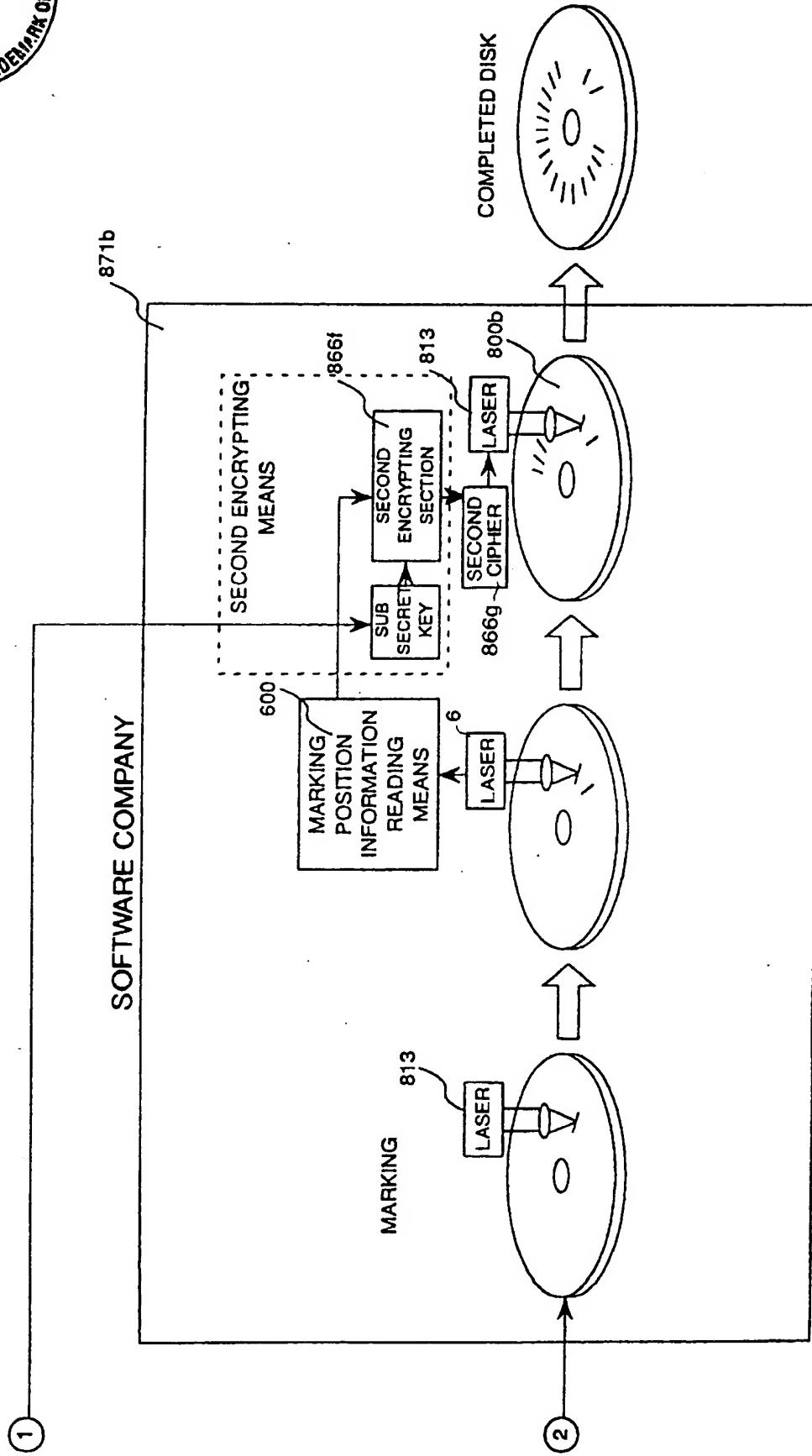


FIG. 37

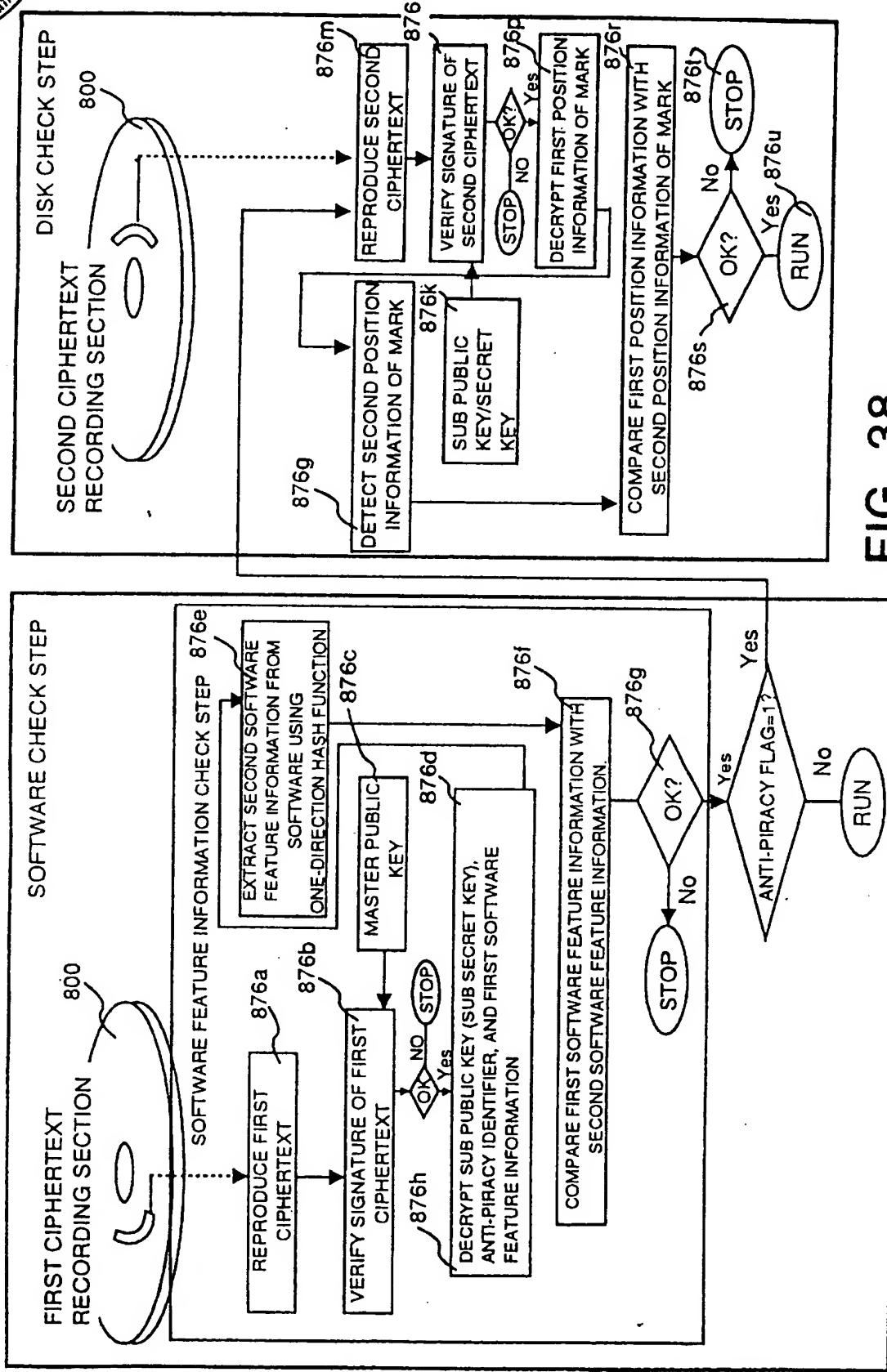
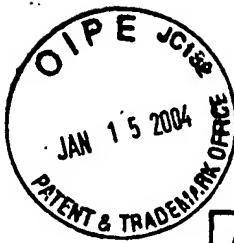
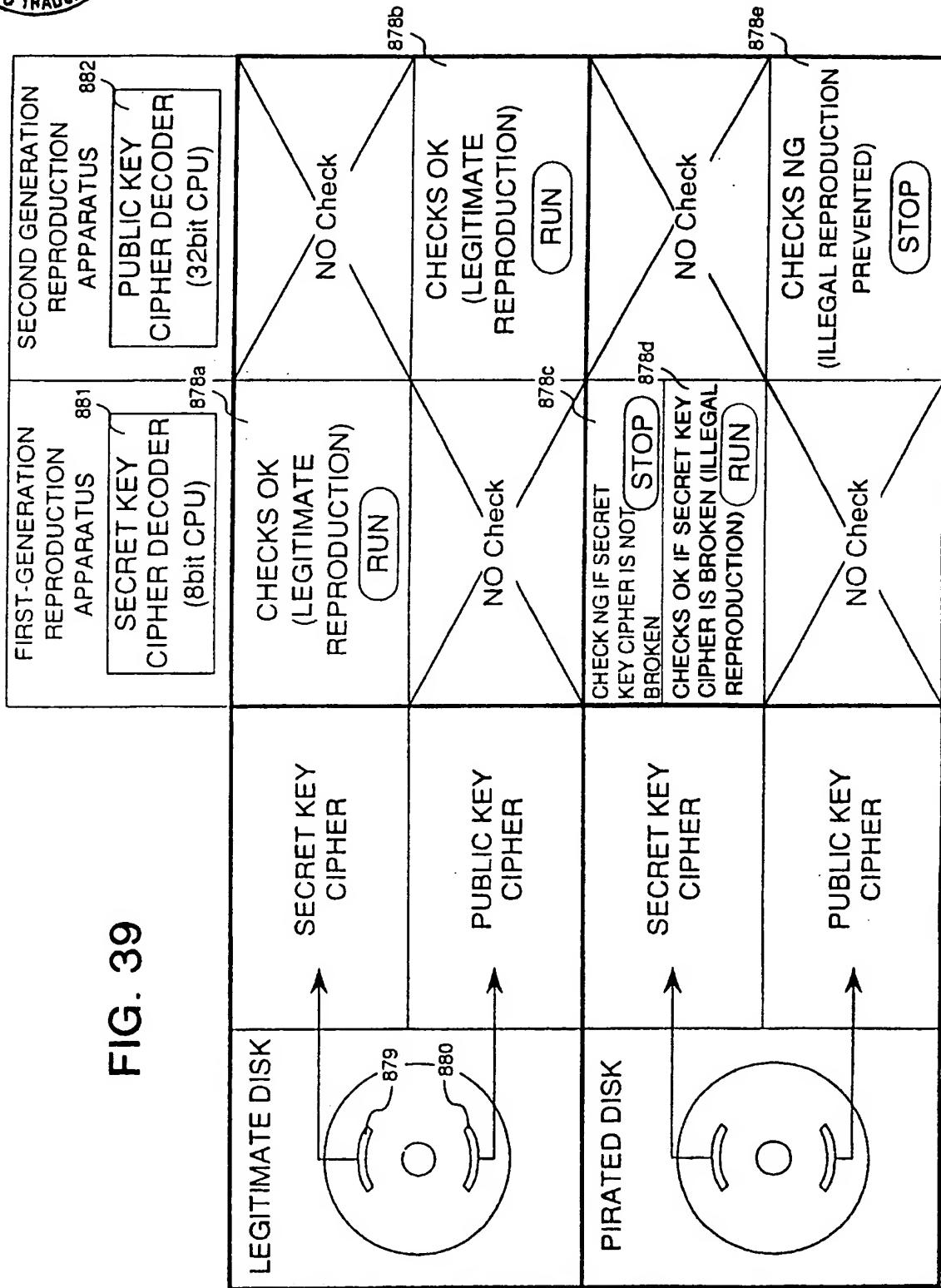
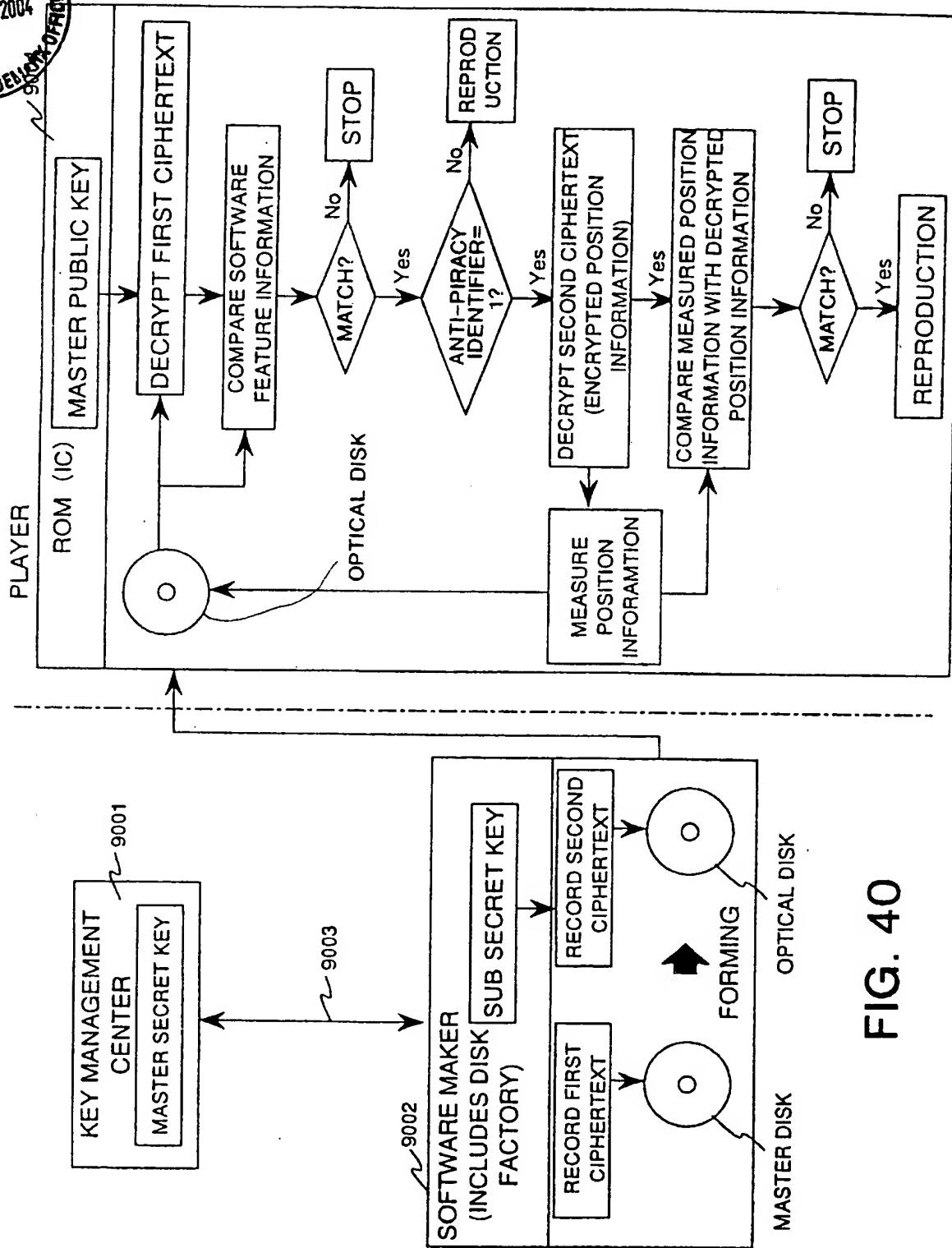
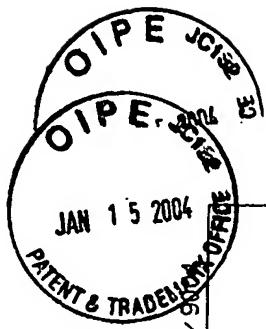


FIG. 38



FIG. 39.





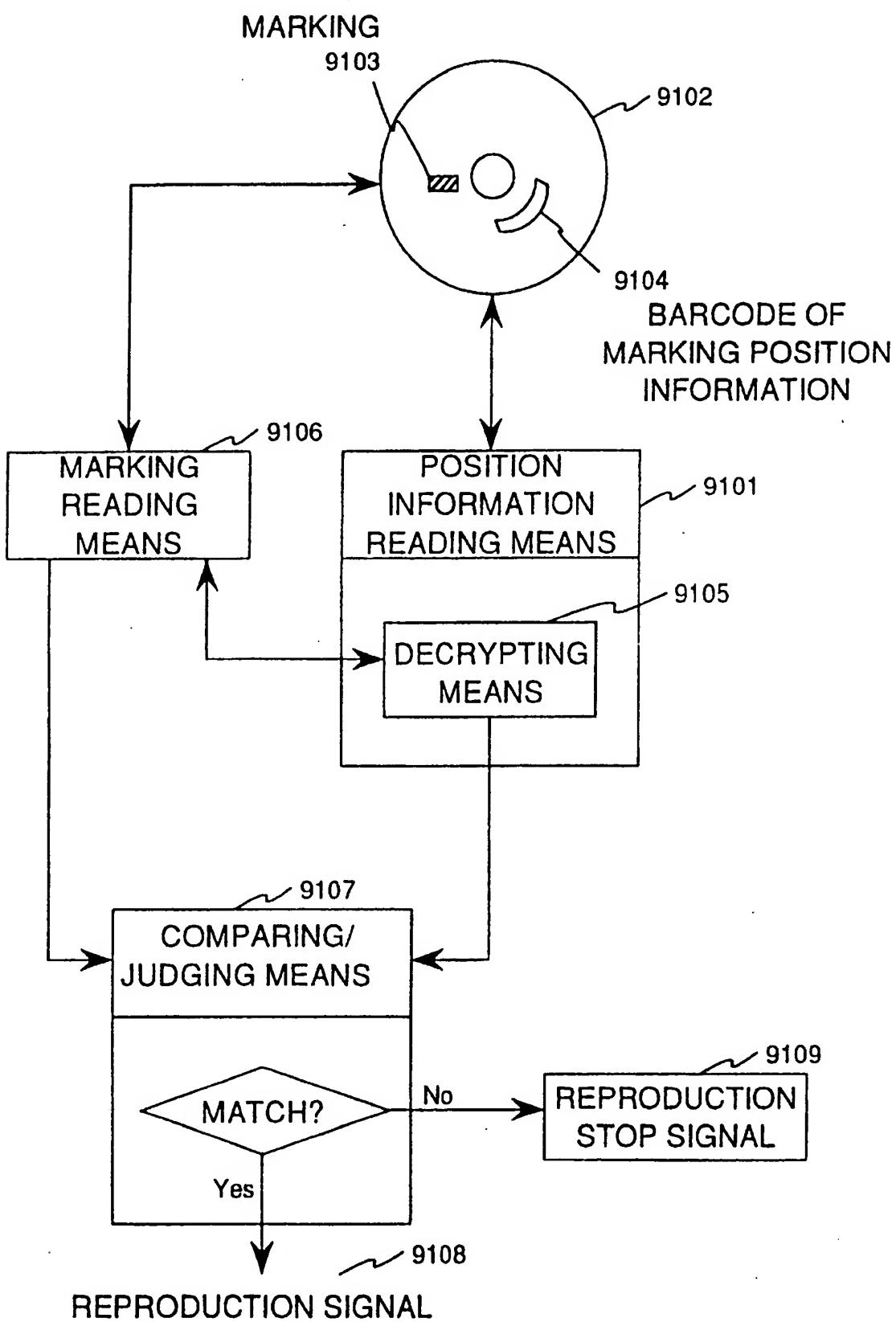


FIG. 41

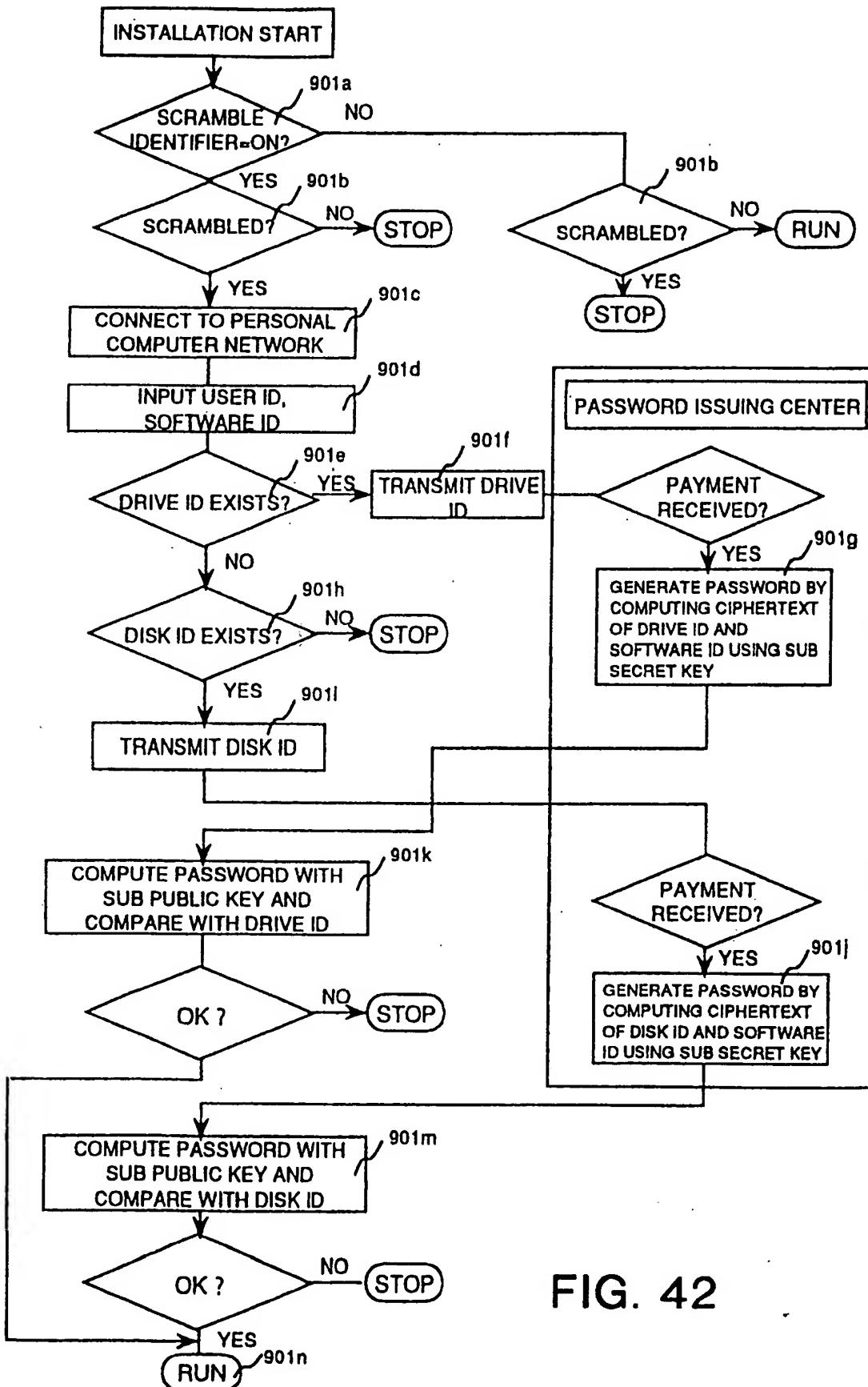


FIG. 42